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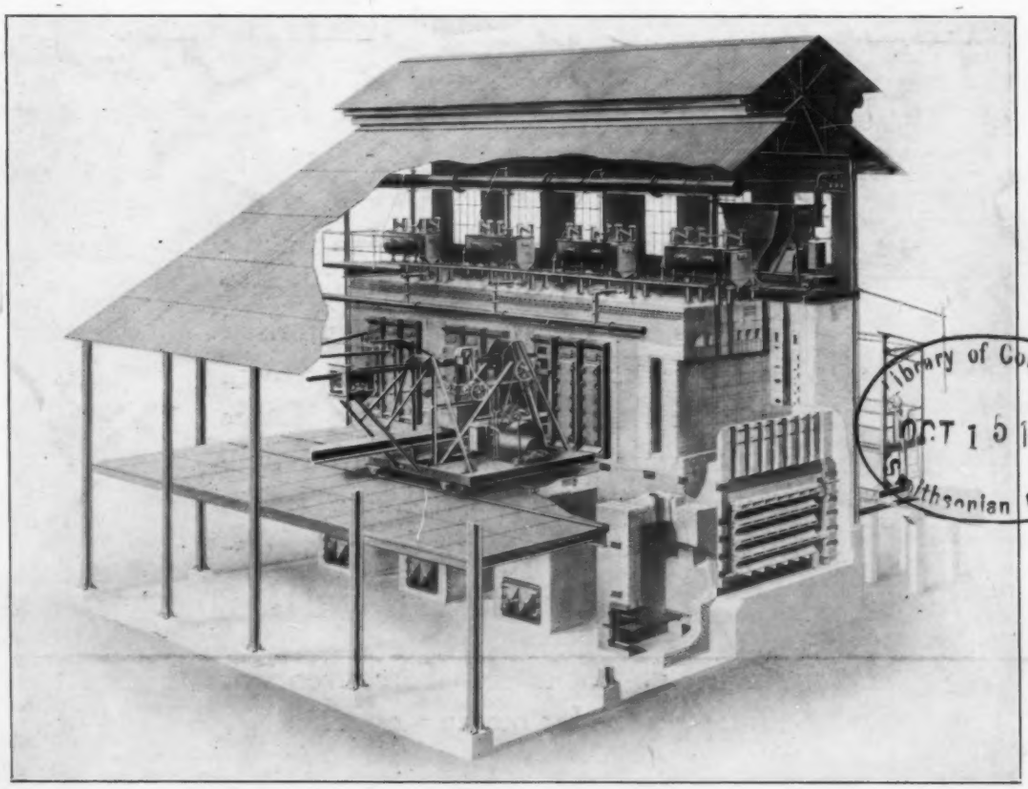

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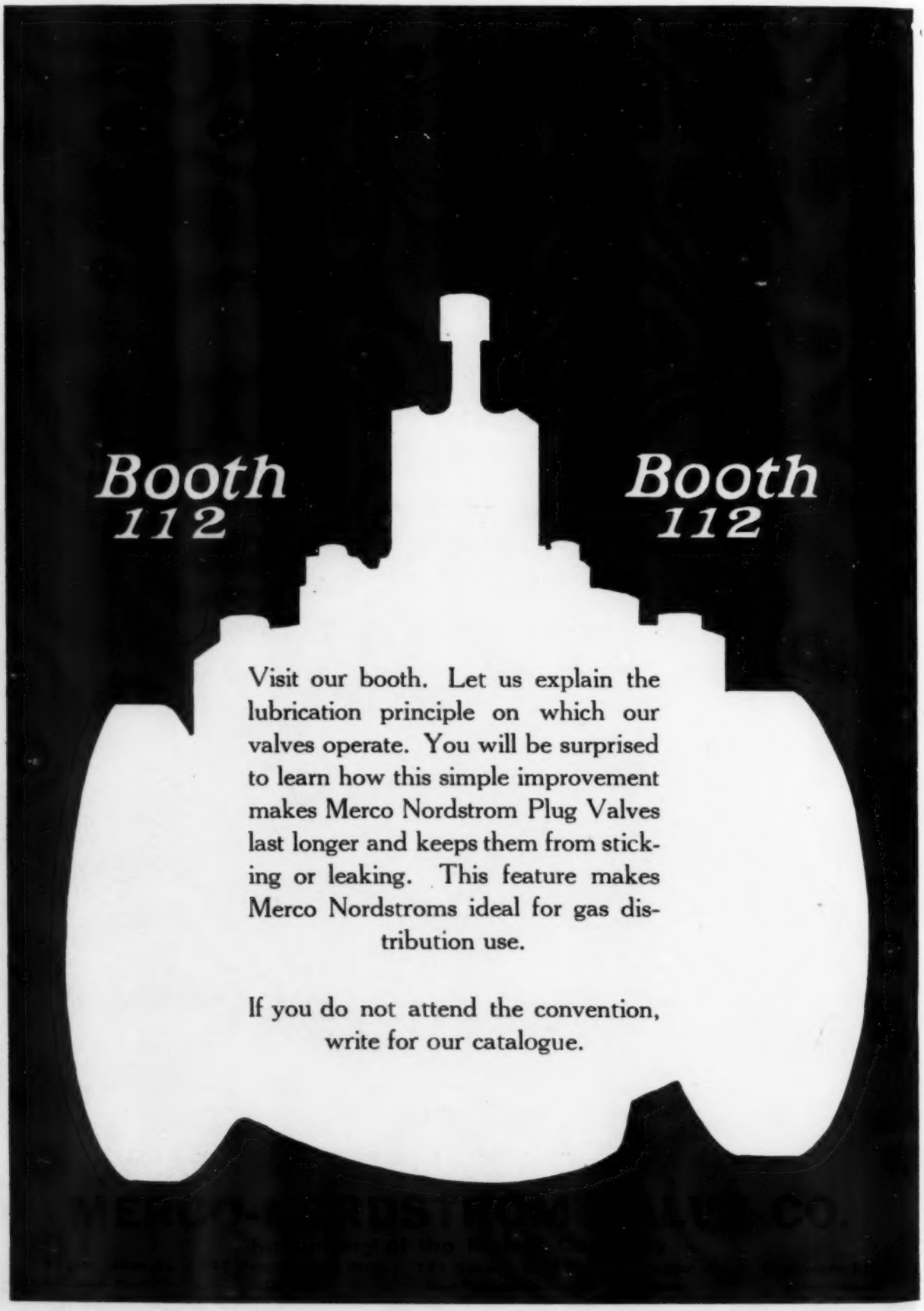
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If you do not attend the convention, write for our catalogue.

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American
GAS JOURNAL

VOL. 125 NO. 16 NEW YORK—OCTOBER 12, 1926—ATLANTIC CITY. N. J. Whole No. 3598

We Meet Again in Atlantic City

Gas Men Are Assembling from All Sections—Interesting and Entertaining Program Arranged

Drawn from all sections of the United States and Canada, gas men have been assembling over the week-end in Atlantic City and are still arriving in large numbers to attend the Eighth Annual Convention of the American Gas Association. This is the fifth consecutive time that Atlantic City is our host.

As usual, gas men are finding a warm welcome in this "Playground of America by the Sea." They are finding that a great many business and entertainment features have been provided for them by those indefatigable workers in the American Gas Association headquarters. This year they will assemble for convention meetings and to view the wonderful displays of plant equipment and gas appliances on Young's Million Dollar Pier in place of the Steel Pier, where the convention had been held for the past four years. The use of the Million Dollar Pier for this purpose is a welcome innovation, for it is a much larger pier than the Steel Pier and has been called the best appointed pier in Atlantic City for this purpose.

STEEL PIER TOO SMALL FOR CONVENTION

The size of the National Gas Convention and of the National Exhibition has been growing from year to year, and in 1925 it was definitely concluded that it would be no longer possible to hold the meetings and to house the exhibits on the Steel Pier. The only remaining pier in Atlantic City, which was available and which was of the proper size for this purpose, was the Million Dollar Pier.

Gas men will find that the exhibits are veery conveniently arranged on this pier and that they are planned this year entirely in accordance with the high standard that has been set by the manufacturers in past years. The exhibits cover a wide range of gas manufacturing, distributing, metering equipment, office appliances, and the like, as well as all the various gas appliances, such as ranges, water heaters, incinerators, gas refrigerators, laundry equipment, etc., etc.

Gas men will be attracted to the booths by the various novel features that have been used by different manufacturers to concentrate interest in their products. All of the booths are worth while visiting and the gas men will find that they will be both entertained and instructed in their visit to the exhibits.

This year, as in former years, the main purpose of the convention is to present to the gas men of America reports on the work done during the year and to outline plans for future work. To this end, all of the sections, including the general sessions, have arranged very interesting and comprehensive programs. Men of prominence have been invited to address these meetings. Subjects have been chosen which are of vital importance to the gas industry of America.

INNOVATION IN SECTIONAL MEETINGS

An interesting innovation has been arranged for the sectional meetings, consisting in the elimination of the reading of reports, these reports being printed beforehand by the A. G. A. and distributed to the gas men. In place of reading these reports, the chairman of the committee, in a number of cases, has arranged to deliver an address covering the high-spots in them, and in addition thereto, a number of speakers, on various special subjects, have been invited to address the meetings, there being this year more time for this kind of a program than in former years.

MANUFACTURERS OPEN CONVENTION

Yesterday afternoon the convention really opened with a meeting of the manufacturers' section, the chairman of which, Watson E. Derwent, of the George D. Roper Corporation of Rockford, Ill., delivered a report in which he took up in detail the various activities of his section during the past year. This report will be found published in this issue in the account of the manufacturers' meeting.

The first general session takes place this morning, and from this point on, the convention will be in full swing. The keynote of the convention, as was indicated in the meeting this morning, is

the three to five-year program, as reported by the special committee, of which Hon. George B. Cortelyou is chairman. This program will form the central point in all discussions that will take place during the convention, for it outlines in great detail a plan for future activity on the part of the A. G. A. and the American Gas Industry, covering a period of three to five years.

Edward S. Jordan, president Jordon Motor Co., Detroit, Mich., on "National Advertising for the Gas Industry and for the Manufacturers of Gas Appliances."

Philip Cabot, Harvard graduate School of Business Administration, Harvard University, Cambridge, Mass., on "Selling All the Gas That Should be Sold in the Home."

James R. Allen, industrial engineer of the International Harvester Co., Chicago, Ill., on "The Gas Industry and the American Manufacturer."

David Lawrence, publisher United States Daily, is on "The Public's Measure of An Industry."

During the general sessions, there will be a presentation award of the 1925 A. G. A. Meritorious Service and McCarter Medals.

TECHNICAL MEETINGS COMMAND INTEREST

As mentioned above, the sectional meetings will contain much of intereest this year. Particularly interesting in the meetings of the Accounting Section will be the reports of "Relations With Customers' Committee," "Statistics and Cost Accounting Committee" and of particular interest will be the paper by G. A. Burrows on the "Customers' Accounting System of the Consolidated Gas Company of New York."

Of course, in talking of the Accounting Section, mention must be made of the exhibit of this section on Young's Million

MANY INTERESTING ADDRESSES

Interesting addresses to be presented at the general session are those by:

Dean Ralph E. Heilman, School of Commerce, Northwestern University, on the "Economic Advantages of the Gas Industry As Related to Its Competitors."

Dollar Pier, showing modern methods of accounting that are practiced by gas companies in America today. This exhibit has always been of considerable interest to the gas men, and we recall particularly last year that the making-out of customers' bills, as carried out on the specially arranged platform, was an attraction to every visitor on the pier.

MANY INTERESTING COMMERCIAL SUBJECTS

The Commercial Section this year is going to pay particular attention to the A. G. A. Testing Laboratory work and house-heating refrigeration and also to the Blue Star campaign.

In the Industrial Section many timely subjects will be presented relating to the organization and operation of the Industrial Gas Department and to the use of gas in some very interesting and special industrial processes.

A very interesting program has also been arranged for the Technical Section, consisting of the usual reports, special provision has been made for stimulating discussions from the floor. The Publicity and Advertising Section will hold a one-day meeting, and the subject of this meeting will be "Advertising." It will be in the nature of a symposium on some of the most pressing problems that confront the gas industry today. Meen of national prominence i nthe advertising world will take part, and the symposium itself will deal with that vital question, "National Advertising." C. E. Paige, vice-president of the Brooklyn Union Gas Company, Brooklyn, N. Y., will preside at the symposium.

The gas men attending these meetings will find that the program of all the sections have been arranged this year in accordance with the general thought of the two to three-year plan, around which, as we have said, the 1926 convention centers.

ENTERTAINMENT

Entertainment features have also been provided for this convention. It is true that gas men who attend the National Convention have foremost in mind the business activities of the meetings. Nevertheless, there is no question but they will find time for the entertainment as well. There will be a dance, for example, at which the Waldorf-Astoria Orchestra will furnish the music, music which has become rather well known over the radio. Many who have danced in their homes to the music of this band will have an opportunity of dancing to this music in the dance hall on the Million Dollar Pier. This will be on Thursday evening, October 14. A tea and concert for the ladies will be given on Tuesday afternoon on the Million Dollar Pier, and in the evening there will be the annual president's reception, followed by dancing. On Wednesday afternoon the ladies will be entertained at a luncheon in the Submarine Grill of the Hotel Traymore, and in the evening the Public Relations Symposium will be held on the Million Dollar Pier. Thursday afternoon there will be a tea and concert for the ladies on the Million Dollar Pier.

Manufacturers Open Convention

Discuss A. G. A. Laboratory–W. L. Smith Elected Chairman

With the largest attendance ever known at a manufacturer's session of an A. G. A. convention; with practically all the national officers in attendance and with interesting reports telling strongly of the excellent work accomplished in the past year the Manufacturer's Section held their meeting yesterday afternoon in Meeting Room B on the Million Dollar Pier, opening the A. G. A.'s Eighth Annual Convention.

Chairman Watson E. Derwent presided at the meeting and gave his report. In this he outlined the work of the year, pointing out that the manufacturers had actively cooperated in practically all association work, an evident fact as over sixty per cent of all committees had manufacturer representation.

Mr. Derwent suggested that the manufacturers turn their attention to the perfecting and development of devises for steel heating and not leave this field entirely to electric furnace men. He also advised that the manufacturers cooperate in every way possible in the gathering of statistical information concerning the amounts of money invested in the manufacture of gas appliances, apparatus and equipment and the amount of gross revenue derived from the sale of such products.

INDORSES ADVERTISING PLAN

The chairman urged the endorsement of the advertising plan devised by himself and members of the section and listed to come up at this convention.

He stated he believed this method the only means of accomplishing the three main points necessary to insure the maximum results from the A. G. A. Laboratory. These points are the securing of complete cooperation of gas companies by having them agree to handle only appliances meeting specifications; the educating of the other 50 per cent of the appliance purchasing power as to what approved appliances mean and the enlightening of the ultimate consumer on the meaning of such products, thereby creating a demand for high grade equipment. Mr. Derwent's address will be found elsewhere in this issue.

PRESIDENT ABELL ADDRESSES MEETING

President H. C. Abell complimented the Manufacturers' Section on the work of the past year and mentioned that some idea of their importance in the nation is found in the estimate that their gross business runs over $150,000,000 per annum. He also praised the work of the Association's lab-

oratory and declared that it was of vital need to the nation.

A. H. MacBeth, the incoming president, gave a short talk in which he said the future of the gas industry lies largely in residence heating and industrial use and that it is imperative that the manufacturers meet the demands of the public along these lines. He suggested that some arrangement whereby heating appliances might burn slowly and evenly over long periods, instead of by quick heating process, might serve to reduce peak loads on gas companies. An organizing of the retail sellers in the nation was the last suggestion made by the speaker.

Major Alexander Forward, A. G. A. secretary, seconded this latter suggestion and declared that the dealer class membership in the association was a field rich in value to the industry and one needing development. He urged the manufacturers lend their support to the association in gathering statistics and praised the laboratories as the rallying point for the serving of the American public.

W. L. SMITH ELECTED CHAIRMAN

Wendell L. Smith, chairman of the nominating committee, named W. E. Steinwedell, of Cleveland, as chairman, and H. L. Whitelaw, of New York, as vice chairman.

W. E. DERWENT
Retiring Chairman, Manufacturers Section

No opposition was shown and the secretary cast the ballots. Both men accepted with short addresses.

R. M. Conner, director of the Cleveland laboratories, read a paper on "What the Testing Laboratory Means to the Appliance Manufacturer." In this he pointed out that Baltimore has recently enforced a city ordinance requiring all gas appliances sold in the city meet the approval of the A. G. A. and that other cities were considering similar rulings. About 70 per cent of the range manufacturing members have submitted their products to tests during the past year. He said that at least 6 per cent of the non-members had submitted to these tests. Overcoming of carbon monoxide fumes has been one of the important works of the laboratory staff recently, he stated, outlining several methods by which this has been possible.

The tendency of some companies to manufacture unapproved devises is a serious problem today, he said. The production of two lines of goods, one approved and the other produced for cheap sale, is still another serious method which must be overcome, he pointed out.

EFFICIENCY OF GAS APPLIANCES BEING INCREASED

Expressing his firm belief in the future possibilities of the gas business and the success of the laboratory, Mr. Connor predicted that gas ranges to operate with an efficiency of 80 per cent and absolutely odorless are not hard to visualize. The doubling of the efficiency of radiant heaters, water heaters and central househeating plants also are but things of the near future. The absorption system of refrigeration opens another line of gas application of the future.

"It is commonly conceded by the electrical industry that the scientific end of their business is overdeveloped, when compared with their commercial departments. I believe that the reverse of this condition is true with respect to our own business and the application of scientific principles to the utilization end of our business is but waiting," he said in closing.

H. L. Whitelaw read a report of the Utilization Appliances Division after which a rising vote of thanks was given by the meeting to Secretary Berghorn for his excellent work during the year and the part he has played in bringing about the exhibit now on at this convention.

H. LEIGH WHITELAW
Vice-President and General Mgr. American Gas Products Corp., New York

A. E. ROBERTSON MADE SALES MANAGER

FORT WAYNE, IND.—A. E. Robertson, for several years sales engineer of the Western Gas Construction Company of this city, has been promoted to the office of sales manager. Mr. Robertson started with the Koppers Company in 1916 and in 1918 was transferred to the Western Gas Construction Company where he has remained since.

LUNCHEON AND CARD PARTY ON WEDNESDAY

The Ladies attending the Eighth Annual Convention are invited to be the guests of the Association at a luncheon and card party on Wednesday, October 13.

Luncheon will be served at 1 P. M. in the Submarine Grill. Ladies are requested to present card enclosed with invitation at entertainment window, Registration Bureau, on the Million Dollar Pier, not later than six o'clock Tuesday afternoon, October 12, in for which they will be given a ticket for this function.

*The 3 to 5 Years Program Forms Convention Keynote

President's Address Analyzes Program Committee Report

H. C. ABELL

We pass another mile-stone. This convention closes eight years of the American Gas Association's activities.

I spoke last year of what the association had done, and was doing, to realize the hopes of its founders for the improvement of all opportunities to advance the gas industry. This year I shall merely make a report on progress toward "The Association's Program."

The association's work has been incalculably helpful to its members and to the industry as a whole. I believe it has kept abreast of the many problems affecting the gas industry, and that its accomplishments have been continuous and constructive. Yet, nevertheless, a more effective program is possible, and we should consider it.

The Executive Board felt, indeed, that such program should immediately be formulated, as a basic guide for the industry. They thought this program should cover a considerable period of time in advance. And they thought that a report should be presented to the Advisory Council and Executive Board in Atlantic City last May.

† The Program Committee was appointed last November, with Hon. George B. Cortelyou as chairman. It went to work promptly. It asked each section and each general committee to report their own recommendations for a program to cover three to five years. They further asked estimates of the money likely to be thus required.

* To be delivered at the opening meeting of the 1926 Atlantic City Convention, October 12, 1926.

† This report is published in full in the July 3, 1926, issue of The American Gas Journal.

The report to the Advisory Council that followed embodied, therefore, the details of an exhaustive study of past association activities, a prospect for future work based thereon.

H. C. ABELL
Retiring President American Gas Association

SPECIAL COMMITTEES ORGANIZED

General discussions and informal addresses followed the presentation of the report. Two days were spent in such conferences. Then the report was unanimously approved, and a special resolution passed to thank Mr. Cortelyou and his committee for an admirable accomplishment.

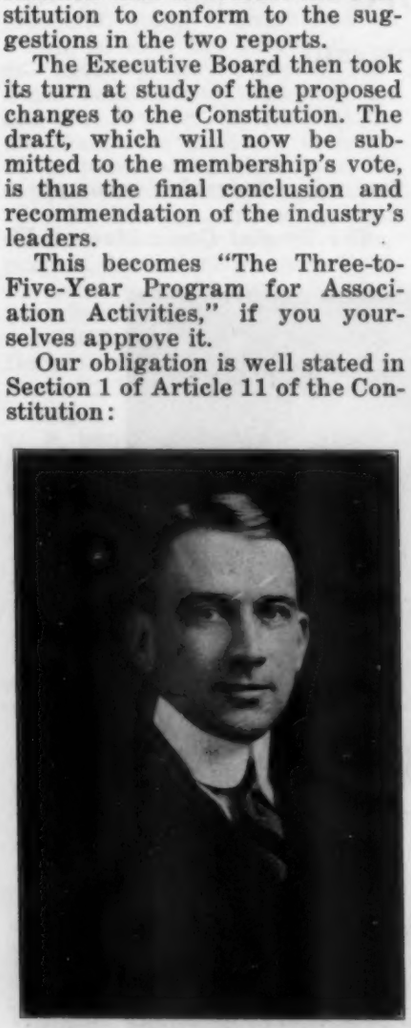
The Special Committee on Financing was immediately appointed, as recommended, Mr. T. N. McCarter as chairman. The association and the industry are much indebted to Mr. McCarter and his committee for a most painstaking investigation of every budget and every suggested expenditure. He has consented to address you at this session on his committee's report. This, too, has been adopted by the Executive Board.

The board immediately instructed the Committee on Constitution then to redraft the Constitution to conform to the suggestions in the two reports.

The Executive Board then took its turn at study of the proposed changes to the Constitution. The draft, which will now be submitted to the membership's vote, is thus the final conclusion and recommendation of the industry's leaders.

This becomes "The Three-to-Five-Year Program for Association Activities," if you yourselves approve it.

Our obligation is well stated in Section 1 of Article 11 of the Constitution:



R. C. HOFFMAN, JR.
Pres., Standard Gas Equipment Company

"To promote and develop the gas industry and to co-ordinate its activities to the end that it may serve to the greatest possible extent the best interest of the public."

MANY PROBLEMS DEMAND CONSIDERATION

To meet that obligation, or to even approach it, means consideration of many problems. I touch only a few.

1. The use of the best raw material suited for economic manufacture of gas in the territory to be served.

2. The adoption of the best means of generating gas of the quality best suited to serve the territory, including an investigation into the disposition of residuals or a more complete gasification.

3. The best method for economic distribution of gas, with consideration to be given to the development of large gas manufacturing plants and transmission systems.

All of which requires the highest type of technical ability in research work, the co-ordinating of the results of the research and the final reduction to practical use.

The industry has had wonderful support from its manufacturers. But it could neither have nor expect the same assistance as the electrical industry has enjoyed. For its appliance and apparatus business was split into small units under very strong competitive conditions with small margins of profit.

Much of the development in the electrical-utility industry has been done largely through the assistance and advance work of two large apparatus and appliance manufacturing concerns.

TECHNICAL SECTION HAS DONE GOOD WORK

The Technical Section has accomplished a great deal for the industry. But this has been limited to the work undertaken by committees, composed of members employed by the various gas organizations. The various committees could not undertake much special research or go into very extensive and exhaustive investigation, on account of the limitation of their members. Adequate funds, moreover, were not available to employ specialists to conduct the desired research work and investigation. It is self-evident that the gas industry has thus been somewhat handicapped. Only $10,000 is requested in the budget for special technical work of any and every kind.

I, myself, believe that some of the manufacturers are, or soon will be, busily engaged in research and the development of improved methods, appliances and apparatus. I also believe that the time has arrived when assistance will be rendered by some of the gas companies willing to install equipment which is only in the development stage. We all appreciate the importance of reducing the results of research and investigation to commercial practice. I, therefore, believe that gas company executives are fully realizing the necessity for co-operative development, if the gas industry is expected to hold its own and to grow.

SAFE ECONOMIC APPLIANCES

4. The development of the most economic appliances and

WENDELL SMITH
Vice President & Gen. Mgr. A B Stove Co.

their safe use, both for domestic and industrial purposes.

I will not take time to go into the merits of the Testing Laboratory, which this problem suggests. We will have the pleasure of hearing Dr. G. K. Burgess, director of the U. S. Bureau of Standards at Washington, on "Perfecting Service and Safety." The bureau has been most helpful, in every way, in assisting in the formation and organization of the laboratory. In fact, I believe I might very properly say it has taught the gas industry the

necessity for a laboratory, and then led it in the development to put the laboratory in a position to do its work.

Mr. Conner, director of the Laboratory, has addressed the Manufacturing Section on the Appliance Testing Laboratory. His address will give you everything thereon, and much more than I could say.

To sum up with respect to the Laboratory, I believe we all appreciate the need for the laboratory and its relation to the industry. I think every gas company should force every appliance manufacturing company to have its appliance tested and approved by the laboratory. Appliances should not be admitted to distribution by the gas company that have not the laboratory's approval. Tentative approval should at least be obtained, subject to test when test can be made. I believe every company executive appreciates the absolute need for some stand, even though it appears to be drastic. Public safety and public demand have so forced the situation that something must be undertaken immediately. I believe all the representative and better appliance manufacturers are doing their part. Therefore, those that do not, must be compelled to. The laboratory was not undertaken, nor is it operated for profit, but solely for the protection of the public using gas. The laboratory work was undertaken on account of a national demand and as a public necessity. The need for the laboratory was fully appreciated when it was started, therefore, you must now support its work by action.

R. H. MAURER
President Automatic Safety Appliance Corp.

RESEARCH AND DEVELOPMENT

The industry fully realized the need for research and development of proper and efficient appliances for industrial gas utilization. This was shown by some of the larger companies subscribing $100,000 each year for five years to be used in this undertaking. This underwriting was most necessary. It is timely because considerable heat-treating work, which gas companies should be doing, is now being performed by competitors. These should not have the business either by reason of better heat efficiency, better quality of product, or lower cost.

The Industrial Research Committee's membership consists of men of experience and judgment. Its chairman is Mr. F. J. Rutledge. Arrangements have been made to have the most advanced workers along industrial-appliance lines undertake the research. All expenditures for this are to be made under a budget system, to be approved by our Board of Directors. We feel, therefore, that extraordinarily beneficial results are bound to accrue to the industry through this one contribution by some of the companies.

DEVELOPING DOMESTIC USERS FOR GAS

5. Developing and following up domestic uses for gas.

A Home Service Department has been organized at headquarters under Miss Annie Deane Dowell. The association in cooperation with the Home Owners' Service Institute has drawn plans for model homes embodying complete installation of gas piping, with provisions for minimum quantity of domestic gas installations.

The regional sales-stimulation conferences have continued to be held and a more intensive study has been undertaken to equip homes with all the appliances and utensils which a home cannot afford to be without.

Committees on house-heating, water-heating, incineration, and the like, have all been most active.

Refrigeration by gas is being very diligently prosecuted and the committee are most hopeful, enthusiastic and encouraging in their expectation that the use of gas for this development will be most helpful to all companies. Mr. H. D. Valentine is chairman of the committee. He will address the Commercial Section on Thursday afternoon.

6. Advertising.

A special committee on National Advertising has made a thorough investigation. I cannot state in a more concise way what it has done than to repeat its recommendations to th eSpecial Committee on Association Finances.

1. Your committee recommends that an appropriation of $15,000 be made from the association treasury.

2. This money is to be expended in a national survey of domestic gas utilization, as a necessary preliminary to a comprehensive national advertising plan.

C. J. KING
Vice President Smoot Engineering Company

3. Your committee, after careful consideration, believes that before effective advertising can be done, it is first necessary to find out the attitude of the gas-consuming public toward gas or now used, and toward its future as far as they are concerned.

4. There are many in our industry who believe we know all we need to know now, and who believe we should recommend, forthwith, an appropriation, starting some kind of advertising at once. The committee has considered the matter and are of the opinion that while speedy action is desirable, there must be a plan. Making a plan involves getting information, hence, this recommendation.

5. When the survey is completed, this committee, with the Committee on Publicity and Advertising Section, will make recommendations to the Executive Board covering a National Advertising campaign.

This committee consisted of leaders in the industry with Mr. Clifford E. Paige as chairman. Its report speaks for itself.

Everyone appreciate that advertising, in proper kind and amount, must be done because it is absolutely necessary. A mint of money can very easily be spent on advertising and accomplish little more than nothing. I believe the committee has taken the wisest course. A properly conceived and developed plan will unquestionably produce the best and quickest result at the least expenditure.

7. Rates.

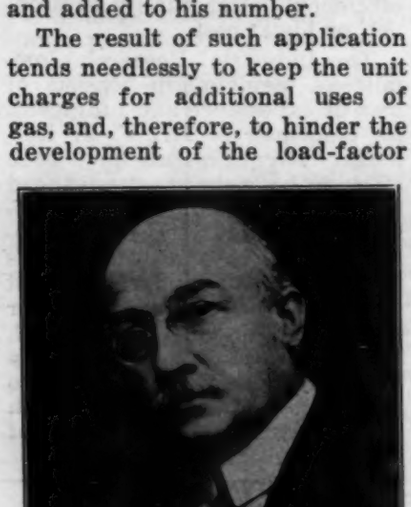
At almost every meeting of public utility executives the rate problem is with us. The Executive and Advisory Council in Atlantic City thought it important enough to request the Committee on Rate Fundamentals to take such steps as it thinks advisable to promote the adoption of the principles of the three-part rate. Yet, even so, many public utility executives really do not understand the problem, nor appreciate the importance of furthering the adoption of proper rate schedules based on a scientific study of actual service costs.

As evidence of this, I think it can be shown that the investment for large, efficient generating units, and other improvements in the art, has made it possible in some undertakings to decrease operating expenses and fixed charges per unit of the utility's product sold. Some utilities, instead of taking advantage of the

COL. E. S. DICKEY
Mgr. Maryland Meter Works, Baltimore, Md.

opportunity to install a scientific rate schedule, merely reduced the top rate charges, even though the customer cost and demand expense per customer were decreased comparatively little. Thus, they made the unprofitable customer still more unprofitable, and added to his number.

The result of such application tends needlessly to keep the unit charges for additional uses of gas, and, therefore, to hinder the development of the load-factor



JOHN GRIBBEL
President, John J. Griffin & Co. Philadelphia, Pa.

and the greatest use of investments, consequently burdening profitable customers to pay a relatively higher price. This might ultimately embarrass the utility from taking on all prospective business under competitive conditions, which otherwise might be possible.

PROPER RATE STRUCTURE IMPORTANT

A properly constructed rate schedule would assist very materially to relieve this condition. It would strictly accord with a public utility's obligation, which is to serve the public to the greatest extent and to assist in every way in the most economic development of the nation's requirements and necessities.

The condition is not confined to the gas industry alone, but is as true of the other utilities.

Three committees have spent many hours on this problem during the past year and have accomplished wonderful results. They are the Rate Fundamental Committee, with Judge Ransom as chairman; the Rate Structure Committee, Mr. T. C. O'Hare, chairman, and a special committee under "Rate Structure Committee, headed by Mr. Theodore V. Purcell, in the preparation of "The Principles of Rate Making for Gas Service." The whole industry is under great obligations to the members of these committees. Their work, their outline for future work, and the co-operation they suggest with other public utility organizations, will produce a most solid foundation for education of utility executives, employes and, the public, alike.

I recommend a reading of these rate reports to every gas company executive, and every one interested in utility-rate problems. They will interest such readers, benefit their companies, and prove generally inspirational to all concerned with economic problems.

"CONTACT EXECUTIVE"

The Rate Fundamentals Report was mailed to member companies, with a request that a "Contact Executive" be named, to whom communications to further the principles of the

Three-Part Rate may be sent. This has stimulated much interest. A manual on the Three-Part Rate is now being prepared. It will be published by the association.

A Rate Department has been established at headquarters, under Mr. C. S. Reed, who is giving part of his time. He needs no introduction. He, too, will address the convention, October 14, on "Building a Rate to Build the Business." I am sure he will be helpful to executives contemplating revision of their rate schedules.

The public utility world, I believe, is under lasting obligation to the committees named for the accomplishments, the results of their efforts and the suggestions for future activity. I think the record made, and the results ultimately to accrue, will put the American Gas Association in first place for proper rate schedules. This will ultimately permit all utilities to render the maximum service to mankind.

MANY ACTIVITIES

The Executive Board and officers have started on, and disposed of, many and varied problems affecting the gas industry, both from inside and outside sources. These touch practically every conceivable problem in all branches, not only those of management and operation, but also those of policy, public-relations, investment relations, insurance relations, relations with other associations and organizations, public utilities, industrial associations, governmental bodies, and more. All sections, Accounting, Commercial, Industrial Gas, Manufacturers' Sections, Publicity and Advertising Section, Technical and all General Committees report all their proposed activities and details to the Executive Board for its recommendations and final approval. The board considers and tries to keep up with, handle, assist and dispose of many other matters, legislative, judicial, regulatory, etc., and all matters affecting the industry; such as resuscitation and asphyxiation, pollution of streams, taxation, etc., from a local, national and international viewpoint.

I could, therefore, consume all the time of all the General Sessions of this convention if I tried to tell you any of the details of important matters affecting the gas industry, for good or ill, that have been considered by the board and officers.

EDUCATIONAL WORK

Our educational work goes on at a good pace. The American Gas Association's Correspondence Course in Columbia University is now an important factor in the industry. The Committee on Education of Gas Company Employes is to be complimented.

L. L. MOORE
Sales Engineer the U. G. I. Contractin Co.

The Committee on Co-operation with Educational Institutions has finished its most successful year and has made marked progress towards its goal—the education, not only of our own future employes, but of our future customers.

The Committee on Customer Ownership has collected a striking amount of valuable information, and made it available to all of our members. Its work has been in the highest degree constructive and I commend it to consideration by all our people.

The Committee on Accident Prevention has continued its work for the safety of our employees and our customers. It has become an example for efficiency among committees of national organizations organized for similar purposes.

TRAINING GRADUATE ENGINEERS IN THE GAS BUSINESS

The training of graduate engineers to become gas service men and salesmen is part of a new plan, according to George B. Cortelyou, president of the Consolidated Gas Company of New York. A dozen graduates, representing half a dozen scattered engineering colleges and universities, have been accepted by the company to undergo a rigorous course of training in gas manufacture and laboratory work.

Half of the group will be given practical training in all phases of gas plant operations. They will fire retorts, engage as pipe fitters, and during their training perform every operation which goes into the production of gas. The other half will be given a course of training in the utilization testing laboratory, which the company maintains on East 111th street.

"This course has been adopted by the Consolidated Gas Company as a means of still further raising the standard of our service to the people of New York," Mr. Cortelyou said. "It is also hoped that it will have the effect of encouraging technical students throughout the country to avail themselves of the many opportunities now offered by the manufactured gas industry.

"As the ideal fuel for all heating purposes, gas service is destined to occupy an increasingly important place in the economic and social structure of all urban communities.

"The response from engineering schools has been most encouraging and made the selection of candidates a difficult task. Those include men from Stevens Institute of Technology, George Washington University, Lehigh University, Sheffield Scientific School of Yale, California Institute of Technology and the University of Virginia."

A. G. A. Laboratory Needs Advertising Support

Chairman W. E. Derwent, Mfgrs. Section Stresses Important Subjects in Report

It is not the purpose of the chairman of your section to make a long dissertation on what the section has done, can do, or the possibilities for the future. The section has been very active this last year in connection with the work of the association as a whole, and we can, I believe, without showing egotism feel that we have been of material assistance to the industry as a whole in working out their problems.

Early in the year, on the recommendation of a committee of manufacturers from every department of the business, the organization of the section was modified believing that the new arrangement might be conducive to more efficient operation.

NEW SECTIONAL DIVISION

Where formerly the section was divided into ten divisions, they have now been combined into four, as follows:

1. Distribution Equipment.
2. Gas Manufacturing & Auxiliary Equipment.
3. Mechanical Office Equipment.
4. Utilization Appliances.

each division having its respective chairman.

It is apparent that this organization set-up is not as unwieldy as that formerly worked under, and we should get a much better working organization under this plan than under the old one.

The chairmen have been requested to report to you today, and it is hoped they will have recommendations to make for your approval, as to the future activities of their division.

By the nature of our case, it can readily be seen that the activities which can be originated and strictly confined to the manufacturers are more or less limited.

The manufacturers, however, have actively cooperated in practically all association work which is shown by the fact that over 60 per cent of all committees have manufacturer representation.

THE EXHIBITION

Indicative of the active part which the manufacturers take in advancing the progress of the industry is the Exhibition on this Pier, which opened this morning. I believe I need add nothing, except to say that the first exhibition of the American Gas Association, held in 1919, had a total of 110 exhibits, occupying 8,600 square feet. At this exhibition we have 222 exhibits, using 56,000 square feet of space. The growth of this activity has been tremendous, and the manufacturers are entirely responsible for the wonderful showing, giving the industry an exhibit that brings large numbers to the convention, who would not otherwise attend.

I would like to suggest, as long as we are on the subject of exhibitions, that the manufacturers give particular consideration to the annual convention and exposition of the American Society for Steel Treating, which has been recently held in Chicago. In view of the rapid development of heat treating, every day new processes are being perfected, and it would seem that the gas companies and manufacturers of this class of apparatus should keep step and be ready to take on business as fast as it materializes with suitable rates and adequate equipment. It seems to me that it would be to the interests of the manufacturers and the American Gas Association to provide adequate exhibits each year, and not leave the field entirely to the electric furnace man.

STATISTICAL DATA

It has been the thought of your chairman to try to obtain statistical information concerning the manufacturers, because the importance of such statistics is apparent; but it is very difficult to get definite information from the manufacturers, as they seem to show a reticence in giving these figures to headquarters. I recommend that this effort be continued until we have information that will be of very much value to the manufacturers as a whole as well as to the industry. The information which we endeavored to obtain by a method of questionnaires was:

1. Amount of money invested in the manufacture of gas appliances, gas apparatus, and gas equipment in 1925.

2. Amount of gross revenue derived from the sale of products designated above in 1925.

Questionnaires were mailed to all of our company members, and a follow-up letter. The result was 125 replies, of which 46 gave no information. The balance of 79, including all branches of the manufacturing field, showed an investment of about $30,000,000, and a gross income of over $36,000,000. These figures are, of course, incomplete and mean very little. They are interesting and give you an idea of what the aim has been in trying to bring together these figures.

ATTENDANCE OF MANUFACTURERS AT CONFERENCES

The apparatus and distribution men were well represented at the Distribution Conference, held in Cleveland under the auspices of the Technical Section.

Many manufacturers attended the two sales conferences held by the Commercial Section, and helped make these conferences the big success which they were. In this connection it will be of interest to the appliance manufacturers to attend the sessions of the Commercial Section, where reports will be made on house-heating, incineration, refrigeration, etc.

The activity of the Commercial Section in reference to Sales Stimulation in which the manufacturers co-operated was discontinued by reason of the adoption of the Blue Star Campaign, which is much more comprehensive in its scope, and which you are all familiar with to a greater or lesser extent.

There was a joint committee of the Manufacturers and the Com-

mercial Sections which helped work out the Blue Star Campaign, and I would suggest, if agreeable to the Commercial Section, that this joint committee be continued during the coming year.

Mr. R. M. Conner, director of the Laboratory, is on our program and will give an account of the laboratory work.

THE TESTING LABORATORY

It appears that there are three activities which the association should undertake in order to insure the maximum results from the Laboratory.

1. To secure the complete cooperation of the gas companies by having them agree to handle only specification appliances. The gas companies represent about 50 per cent of the purchasing power.

2. To educate the other 50 per cent of the appliance purchasing power, which is the dealer, plumber, etc., as to what approved appliances mean.

3. To educate the ultimate consumer on the meaning of approved appliances and thereby create a demand for high-grade equipment.

My thought is that advertising is the only means for accomplishing the last two, and with that thought in mind, your chairman and various members of the section have been very active in trying to bring about a definite program and plan that will enable us to present our story as an industry to the consumer at large. A very active committee, with Clifford E. Paige as chairman, in connection with the Advertising Section, hope to be able to present a comprehensive plan that will be acceptable to the industry in the near future.

CONSTITUTIONAL AMENDMENT

Toward this end it was found necessary to revise the Constitution of the American Gas Association, and you will be asked to vote on constitutional changes at this convention. Let me assure you that your interests as manufacturers have been carefully considered.

It was found necessary to have a flexible financial structure in order to permit the functioning of the association on a budget plan that would be comprehensive and sufficient. This brought about a necessity for a change of the basic plan of setting up the dues for gas company and manufacturer company members. This will be determined each year by the Executive Board, and will be in an amount to meet the annual budget. For the coming year, the dues of the manufacturers will be approximately twice what they paid last year, which is a small amount if we consider what we do, and can get through our membership.

I would urge that each manufacturer member of the association take a very deep interest in the activities of the association, and feel free to present his opinion to the Board of Directors at any time. I have felt that some manufacturers have, for reasons best known to themselves, not done so in the past. I know from my experience that the Board of Directors are always willing to listen, even though they may not coincide in their belief, and no manufacturer need have any fear in expressing his own honest convictions. If we could have more of this, it would assist the board and officers in shaping their plans and the destinies of the association.

Exhibits Finely Arranged

Attractive Booths on Million Dollar Pier Feature of Convention

The Eighth Annual Convention and Exposition of the American Gas Association opened Monday morning with practically all of the exhibits in place, and with registration and information desks already functioning efficiently. They are located on either side of the entrance to the Million Dollar Pier, in more commodious quarters than they previously occupied, and in situations less exposed.

To the right of the pier entrance lies the entrance to the exhibition hall, occupying more space than ever before in the history of American Gas Association Conventions. A double row of booths stretches in a long straight line out over the ocean until the large main exhibition hall is reached. Exhibits are arranged here on two levels.

EFFECTIVE WINDOW DISPLAY

Effective window displays are arranged on the lower level. In the days before gas water heating made ample hot water possible whenever desired, the taking of a bath was a crime punishable by the pillory just as witchcraft was. A striking display pictures this period of uncertain, unsafe bathing.

A clean, automatic gas heater is graphically compared in the next window display to the mussiness of the overflowing ash can. Gas refrigeration and incineration, economical garage heating are also featured. The cold dreariness of the room without a gas heater is depicted by a pasteboard room and two chilly pasteboard people. The perspective is so carefully managed in this display that the room and characters seem real.

The upper level is a huge ell, with the imposing exhibit of the Gas Association itself occupying the short arm of the ell, and with the remainder of the exhibits grouped about two main aisles, which stretch out over the ocean for the length of a city block.

Safety apparatus, domestic and hotel gas-fired heaters, varied exhibits, fireplace heaters, kitchen ranges, bakery ovens, gas-operated refrigerators, rotisseries, models of factories and gas plants, water-gas plants, coal-loading machines, pipes and valves, accounting machines, a model of an asbestos mine, and a huge ditch-digger which required the construction of a roadway across the Boardwalk to bring it to the pier, vie with each other for the attention of delegates to the 1926 American Gas Association Convention. One exhibitor believes that the future of the industry lies in cutting fuel costs by house-insulation.

The hall is decorated in light blue and yellow drapes, and lighted with rose, gold fringed lamps of pleasing rectangular design. A profusion of potted palms and cedars lend the rich effect which growing things always give.

Gas ironers, washers, and clothes driers, gas thermostats, gas radiators are arranged with an eye to light and color.

THE WARMTH OF THE GAS FLAME DRAWS

The numerous radiant type of space heaters which are displayed are distinguished by the beauty of their design and finish. Cast and plated heaters with andirons, and fireplace furniture to match in the beautiful bronze and brass finishes, which give the effect of hand-hammered metal, reflect the soft glow of the gas flame and draw the eyes and hands of the passerby. There seems to be something irresistably attractive about the blue and gold warmth of a gas flame for knots of spectators were constantly seen in front of the various heaters warming their hands with the soft flame and their souls with the beauty of the flame. Even the gratings of clay which catch and radiate the heat differ in their construction, some of them chastly symmetrical, some of them showing delicate leaf designs, one type giving an imitation of a cheery coal grate hardly to be told from the coal itself, except by its freedom from the carbon-monoxide which coal exudes.

A gas stove is placed above a huge model of the globe in one booth. In another, the fence surrounding the booth is made of brass rod tubing, the product of the exhibitor and a frame for exhibiting various valves and pipes of brass is constructed from the same tubing. Every separate shining piece of tubing catches up the light and throws it back in gleaming prisms. In this same booth, one of the most effective means of displaying small valve fittings is seen in a series of small illuminated cubby holes. Alone in the tiny square of light, each valve gets as much attention, as if it were the only article on a large stage.

ALL BOOTHS RICHLY DECORATED

The booths are all richly decorated and furnished. Persian rugs on the floor, handsome mahogany or wicker desks and chairs offer comfort to the weary delegate and pleasure to the fastidious eye.

One of the most beautiful exhibits has framed a radiant heater in handsomely chased brass in a fireplace of black marble with mantle of satiny walnut.

With improvements in the individual booths over expositions of previous years, there is also an improvement in the scheme of the whole. More thought and care seems to have been expended in the management of the affair. The entire exposition, while covering more space and actually presenting more exhibit material, is yet more compact and more accessible.

HOME SERVICE LECTURES ALL WEEK

A program of interesting lecture demonstrations will be held every morning and afternoon at the Home Service Booth of the American Gas Association Headquarters Booth.

The lectures will begin promptly at 10 o'clock on Tuesday, Wednesday and Thursday. The afternoon demonstrations will be at 2:30 p. m. on these days. There are a great many interesting things promised for these demonstrations.

Tuesday, 10.00 A. M.
Subject: Public Scool Work .
By Mrs. Ella Liner Lambert, Milwaukee Gas Ligt Co., Wisc.

Tuesday, 2.30 P. M.
Subject: Girl Scout Classes.
By Miss Margaret Hutton, Westchester Lighting Company, Yonkers, N. Y.

Wednesday, 10.00 A. M.
Subject: Luncheon Menu.
By Mrs. Eva Hawkins Shanks, Public Service of North Illinois, Chicago, Ill.

Wednesday, 2.30 P. M.
Subject: Calorie Dinner.
By Mrs. Anna J. Peterson, Peoples Gas Light Coke Company, Chicago, Ill.

Thursday, 10.00 A. M.
Public School Classes as conducted through Science Department.
By Mrs. Luella M. Fisher, Eriez Stove Manufacturing Company, Erie, Pa.

Thursday, 2.30 P. M.
Subject: Club Woman's Inspirational Talk and Grill Demonstration.
By Miss Ada Bessie Swann, Public Service Electric & Gas Company, Newark, N. J.

American Gas Journal

SIXTY EIGHTH YEAR

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ISMAR GINSBERG, Editor

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The Dependable Gas Holder

P. C. Rodgers Discourses on That Time-Tried, Fool-Proof Friend of the Gas Men

It is generally true that the standard Gas Holder of the lift type which has been in service for so many years has probably been the part of the modern gas plant which has occupied the least attention of the executives and the operator. Provided the gas plant had sufficient storage so that the question of capacity was not a constant worry, the holder itself, in a great many cases, occupied very little attention. Occasionally a coat of paint was applied (in too many cases too infrequently) and when winter came in cold climates, steam or hot water was turned into the heating system and usually let run by itself until spring arrived.

We wonder whether gas plant executives and operators appreciate what an old, time-tried, foolproof arrangement the standard gas holder has been. The question of danger in connection with holder operation has practically never entered anyone's mind. The gas is constantly stored under pressure with no chance of interior explosion and what few accidents have occurred have been extremely minor in nature, and causing practically no damage. The holder itself has required little or no maintenance. Any piece of steel work should be carefully watched and repainted, but with this exception together with the application of heat during the winter, no constant attention, no skilled maintenance and no frequent inspection has been required.

HEATING HOLDERS

Lately more attention and thought has been given to the question of heating holders. A good many plants have suddenly awakened to the fact that they have been spending more money to heat their gas holders than is necessary. Proof of the fact that the holder has required little attention is evidenced by this very question of holder heating. Steam has been frequently turned on early in the fall and simply been allowed to run for the balance of the winter, while attention was devoted to the operation and improvement of the other parts of the plant. Fortunately, we are now having the attention and thought which the problem merits, put on it, with the result that heating costs have been cut to an astonishing small sum. On one two million cubic foot holder in the Chicago District a circulating hot water system was put on, hooked up with two automatic gas fired boilers with the water circulating through the condensers. During the past winter the condensers alone have borne the chief brunt of the holder heating. The two boilers have been hooked up by thermostatic arrangement burning the gas from the holder itself, and the company which has put this scheme into operation claims that their holder heating in this instance has cost little or nothing for the winter. As a maximum pricing, the gas used at the cost in the holder, the cost of the fuel has not been over about one thousand ($1,000.00) dollars.

It is obvious, of course, that a circulating hot water system can not be economically applied in all instances.

Similar economies can, however, be affected in the installation of properly regulated and properly insulated steam heating systems. Furthermore, in the very cold climates holder tanks, containing the water storage have been insulated with tile walls or stucco with the result that a very small steam consumption has been required for the heating of the tank proper. Only a start has been made on this very interesting problem, but it has already been definitely shown that the mere statement that the gas holder of standard type is expensive to heat is a fallacy.

PAINTING THE HOLDER

Practically the only additional problem of maintenance is the question of paint. How long a coat of paint will last depends chiefly on its application and on the necessity of the metal being perfectly dry and the paint having an opportunity to dry thoroughly before the lifts are immersed in water. It has been almost an universal experience that the paint first shows signs of deterioration on the outer lift of the holder. Recently the Industry has had offered to it several new types of non-drying paints for application to the lifts, which, it is claimed, do not deteriorate and which keep the holder in practically constant good condition. The most interesting of these non-drying paints is that which is floated on the surface of the water in the tank, and in the cups, causing the lifts to be recoated every time they pass in and out of the water. It is perhaps too early to judge definitely of the success of this which has been first tried in this country on a holder of 500,000 cubic feet capacity at Hartford, Connecticut. If, however, it proves successful a very large part of the maintenance cost in repainting gas holders will have been overcome.

With the cost of heating under careful study and well on its way to a very small figure, and the problem of painting also resulting in great economies, the maintenance cost of the standard lift type of gas holder is being reduced to a very negligible figure. No skilled supervision or constant attention is required to be given to it, and it stands there ready to operate day in and day out with no intricate parts to keep lubricated or in order, asking nothing but an occasional new coat and a little warmth. Perhaps it is typical of the fact that we humans often lack appreciation for those things which best serve us, and which give us the least trouble, and by the same token are too apt to disregard these very dependable objects, to wander into pastures new.

Registration of Gas Men will be printed in two sections in each daily issue of the American Gas Journal

Section I

Registration up to 12 m., October 11th

A

Aaron, Charles T.; Battle Cr'k., Mich.; Ambassador
Aaron, J. C.; Taunton, Mass.; Dennis.
Abbott, C. C.; Connersville, Ind.; Shelburne
Abell, H. C.; New York City; Traymore
Acton, John S.; White Plains, N. Y.
Ahrens, J. H.; Brooklyn, N. Y.; Shelburne
Aikin, H. C.; Ardmore, Pa.; Traymore
Akers, A. K.; Birmingham, Ala.; Chalfonte-Haddon Hall
Alexander, Edward K.; Cleveland, O.; Traymore
Allyn, Leon L.; Kalamazoo, Mich.; Brighton
Alrich, Herbert W.; New York, N. Y.; Marlborough-Blenheim
Anderson, W. S., Jr.; Passaic, N. J.; Ambassador
Andeutsch, Fred; Brooklyn, N. Y.
Andrews, C. W., Vice-Pres.; West Duluth, Minn.; Marlborough-Blenheim
Ashenhurst, H. S.; Chicago, Ill.
Austin, R. A.; New York City; Marlborough-Blenheim
Ayer, J. W.; Mercer, Pa.; Chalfonte, Haddon Hall

B

Bahr, Conrad Charles; New York, N. Y.; Chalfonte
Bailey, M. N.; Philadelphia, Pa.; Traymore
Baker, Charles I.; Louisville, Ky.
Baker, Chas. T.; Philadelphia, Pa.; Traymore
Baker, Ira E.; Cleveland, Ohio; Breakers
Baker, Perley H.; Everett, Mass.; Chalfonte
Battin, H. S.; Phila., Pa.; Marlborough-Blenheim
Batten, J. W.; Detroit, Mich.; Traymore
Barclay, Thomas B.; New York, N. Y.; Ambassador
Barnes, Albert M.; Cambridge, Mass.; Traymore
Barnett, James H.; New York City; Continental
Barrows, George S.; Providence, R. I.; Shelburne
Bauer, E. H.; Worcester, Mass; Traymore
Beach, Brewster S.; New York, N. Y.; Shelburne
Beebe, F. H.; Fort Wayne, Ind.; Marlborough-Blenheim
Behrer, M. H.; Long Island, N. Y.; Brighton
Bennett, C. W.; Detroit, Mich.; Traymore
Benzie, F. W.; Queens City, L. I.
Bigelow, Lucius S.; Buffalo, N. Y.; Strand
Biemiller, Lawrence E.; Baltimore, Md.; Ambassador
Birtch, F. W.; Buffalo, N. Y.; Pennhurst
Bischoff, Frank J.; New York, N. Y.
Black, H. B.; Newark, N. J.; Dennis
Blackmoew, G. W.; Pittsburgh, Pa.; Ambassador
Blakesley, G. W.; Kansas City, Mo.; Ritz-Carlton
Boggs, R. W.; New York City; Brighton
Bollinzer, Charles; New York City; Traymore
Bonner, John J.; Gloucester, N. J.; Traymore
Branch, H. E.; Providence, R. I.; Chalfonte-Haddon Hall
Bratton, S. C.; Birmingham, Ala.; Brighton
Brayer, Arthur N.; Rochester, N. Y.
Brayer, Frank N.; Rochester, N. Y.; Marlborough-Blenheim
Breen, Charles J.; Rockford, Ill.; Traymore
Brill, A. P.; Pittsburgh, Pa.; Traymore
Bromfield, St. Clair; N. Y. City; Traymore
Brooke, P.; Royersford, Pa.; Shelburne
Brooks, G. H.; Rutherford, N. J.; Ritz-Carlton
Brown, John Carey; Atlanta, Ga.; Dennis
Brown, J. J.; N. Y. City; Traymore
Brownell, H. R.; Detroit, Mich.; Traymore
Brug, C. J.; Niles, Ohio; Ambassador
Bryson, Chas. G.; Erie, Pa.; Traymore
Budd, George A.; Rome, N. Y.; Ambassador
Bulkley, John T.; New York City; Strand
Bunn, H. S.; New York City; Brighton
Bunnell, Sterling H.; New York, N. Y.; Shelburne

C

Cadmus, William H.; Bloomfield, N. J.; Morton
Caldwallader, F. D.; Brookline, Mass.; Chalfonte-Haddon Hall
Callender, D. E.; Racine, Wis.; Shelburne
Campbell, W. H.; New York City; Ritz-Carlton
Canniff, R. J.; Chicago, Ill.; Traymore
Capen, Frank F.; Boston, Mass.; Breakers
Capper, G. M.; Brooklyn, N. Y.; Ambassador
Capreton, Mr. F. R.; Atlantic City, N. J.
Carrigan, J. D.; N. Y. C.; Marlborough-Blenheim
Carter, C. D.; Royersford, Pa.; Shelburne
Carter, Ralph S.; Malden, Mass.; Marlborough-Blenheim
Casey, John; New York City; Traymore
Chapin, Wm. J.; Pittsburgh, Pa.; Strand
Cheeseman, Ward; Bridgeport, Conn.; Marlborough
Cherry, Arthur C.; East Orange, N. J.; Chalfonte-Haddon Hall
Chisholm, C. T.; Detroit, Mich.; Shelburne
Chisholm, Chas. Tylden; Detroit, Mich.; Shelburne
Christmas, Henry N.; New York, N. Y.; Chalfonte
Chubbrick, S. E.; Cleveland, O.; Clarendon
Clark, Harlow C.; Newark, N. J.; Ambassador
Clarke, Robert S., Jr.; N. Y. City; Ambassador
Clifford, T. C.; Wilkinsburg, Pa.; Traymore
Clinton, DeWitt; Worcester, Mass.; Dennis
Clow, Milton J.; Chicago; Brighton
Cochrane, W. Hugh; New York; Dennis
Collins, Henry A.; Arlington, N. J.; Marlborough
Conklin, John P.; Brooklyn, N. Y.; Traymore
Conover, John L., Jr.; Newark, N. J.; Chalfonte-Haddon Hall
Cooks, H. M.; New York, N. Y.; Strand
Cooper, G. A. S.; Bloomfield, N. J.; Craig Hall
Crawford, R. P.; Doylestown, Pa.; Traymore
Cressler, Geo. H.; Cincinnati, Ohio; Traymore
Creviston, A. E.; Baltimore, Md.; Traymore
Crouch, Walter D.; New York, N. Y.; Ambassador
Curfman, Floyd G.; New York, N. Y.; Ambassador
Curren, Sidney; South Orange, N. J.; Haddon Hall

D

Daily, E. V.; Chicago, Ill.; Brighton
Danner, Harry E.; Houston, Texas; Ambassador
Dais, C. A.; Cohoes, N. Y.; Traymore
Dayton, Duncan, McC.; Flushing, L. I., N. Y.; Ritz-Carlton
Dean, M. T.; Philadelphia, Pa.; Traymore
DeCamp, Stewart B.; New York, N. Y.; Ritz-Carlton
DeFreitas, William A.; New York, N. Y.; Traymore.
Deffenbaugh, Homer C.; Rochester, N. Y.; Marlborough-Blenheim
Delaney, Paul J.; New York, N. Y.; Llewelyn
Delawater, G. R.; Cleveland, O.; Ambassador
DeLoid, George E.; Taunton, Mass.; Leedom
DeLong, J. C.; Syracuse, N. Y.; Traymore
Denney, John M.; Pittsburgh, Pa.; Traymore
Derwent, Watson E.; Rockford, Ill.; Traymore
Dester, William F.; Ampere, N. J.; Knickerbocker
Detjen, Harry M.; New York, N. Y.; Brighton
Detweiler, C. A.; Pittsburgh, Pa.; Shelburne
Dickson, Hunter; Chicago, Ill.; Ambassador
Dillon, E. P.; New York, N. Y.; Dennis
Disbro, G. A.; Cleveland, Ohio; Ambassador
Dixon, L. A.; Pittsburgh, Pa.; Marlborough-Blenheim
Dobson, W. L.; Baltimore, Md.
Dodge, Harry H.; Troy, N. Y.; Breakers
Doering, Henry A.; Yonkers, N. Y.; Traymore
Doran, James F.; Jersey City, N. J.; Ambassador
Doughty, A. J.; Detroit, Mich.; Chalfonte
Doughty, J. P.; Phila., Pa.; Traymore
Drake, W. C.; Pittsburgh, Pa.; Traymore
Driscoll, L. N.; New York City; Ritz-Carlton
Driscoll, L. W.; Atlanta, Ga.; Traymore
Dugger, Henry B.; Columbus, Ohio; Traymore
Dunn, J. F.; New York, N. Y.; Ambassador
Dunsten, C. O.; Springfield, Ill.; Ambassador
Durelle, Mrs. C.; St. Louis, Mo.; Marlborough
Dushane, C. Benson, Jr.; Chicago, Ill.; Traymore

E

Eander, K.; N. Y. C.; Marlborough-Blenheim
Edmunds, Robert C.; Utica, N. Y.; Shelburne
Ehlers, W. A.; New York, N. Y.; Dennis
Eigenbrot, J. L.; Lowell, Mass.; Chalfonte-Haddon Hall
Eldredge, N. E.; Erie, Pa.; Ritz-Carlton
Elkins, Edmund Bates; Boston, Mass.; Traymore
Elwood, W. F.; Greensburg, Pa.; Ambassador
Ely, Herman; New York City; Traymore
Erhard, Herbert C.; Hempstead, L. I.; Chalfonte-Haddon Hall
Erickson, A. F.; Portland, Ore.; Marlborough-Blenheim
Evans, O. A.; Philadelphia, Pa.; Mt. Vernon

F

Farwick, T., Sr.; Elizabeth, N. J.; Knickerbocker
Farnsworth, Kenneth, C.; Athens, O.; Shelburne
Farrell, Ernest E.; E. Orange, N. J.; Shelburne
Fairchild, S. E., Jr.; Ambler, Pa.; Traymore
Foos, J. S.; Jeffersonville, Pa.; Traymore
Fenton, F. S.; N. Y. C.; Marlborough-Blenheim
Ferguson, J. H.; Phila., Pa.; Ocean City
Fest, Fred William, Elrama, Pa.; Ambassador
Fetzer, Rodger, E.; Phila., Pa.; Traymore
Fisher, S. B.; N. Y. C.; Marlborough-Blenheim
Fisher, Luella M.; Cleveland, Ohio; Ambassador
Fitzgerald, L. I.; Columbus, Ohio; Ambassador
Flanigan, C. D.; Athens, Ga.; Ambassador
Flower, R. P.; Chicago, Ill.; Ambassador
Fogg, Oscar H.; New York, N. Y.; Traymore
Ford, Waldo; Chicago, Ill.; Marlborough-Blenheim
Foster, F. H.; Chicago, Ill.; Traymore
Foster, Wm. J.; Pittsburgh, Pa.; Marlborough-Blenheim
Foulds, H. W.; N. Y. C.; Marlborough-Blenheim
France, Frank, West Orange, N. J.; Traymore
Frank, M. H.; Fond due Lac, Wis.; Traymore
French, C. H.; New York, N. Y.; Chalfonte-Haddon Hall
Friedman, Arthur; Cleveland, Ohio; Traymore
Friedman, Leo; Cleveland, Ohio; Traymore
Fuite, Alfred B.; Pleasantville, N. J.

G

Gaites, George H.; Brooklyn, N. Y.; Ambassador
Gamble, E. C.; Birmingham, Ala.; Marlborough-Blenheim
Garvin, James F.; Pitman, N. J.; Traymore
Gates, H. B.; Pittsburgh, Pa.; Chalfonte-Haddon Hall
Gebhardt, Edward Frank, Jr.; Detroit, Mich.; Traymore
Gebhardt, George G.; Cleveland, Ohio; Ambassador
Gebhardt, L. E.; Phila., Pa.; Dennis
Geddes, John W.; Boston, Mass.; Traymore
Geiger, Charles G.; New York, N. Y.; Traymore
Gernhardt, Edward A.; New York, N. Y.; Strand
Gilbert, T. M.; New York, N. Y.; Chalfonte-Haddon Hall
Givney, John R. M.; New Orleans, La.; Brighton
Goudy, H. C.; Baltimore, Md.; Traymore
Graff, Harry; Baltimore, Md.; Marlborough-Blenheim
Grafton, Fred D.; Brooklyn, N. Y.; Ambassador
Greacen, Albert; Brooklyn, N. Y.; Traymore
Green, Wayne S.; Brooklyn, N. Y.; Traymore
Greer, W. Russell; Baltimore, Md.; Traymore
Grow, Fay; Long Island City, N. Y.; Dennis
Griffiths, Norman J.; New York, N. Y.; Shelburne
Gruel, Frederic J.; Yonkers, N. Y.; Traymore
Guitteau, W. S.; New York, N. Y.; Shelburne

H

Habig, Leonard, C.; Passaic, N. J.; Strand
Haddock, Isaac T.; Cambridge, Mass.; Traymore
Hall, Geo. B.; Atlantic, Mass.; Fredonia
Handwork, Walter D.; Alliance, Ohio; Florence
Hamilton, E. S.; New Haven, Conn.; Craig Hall
Hamilton, Paul H.; Cleveland, Ohio; Ambassador
Hanlan, James P.; Newark, N. J.; Dennis
Hannum, Roy C.; Phila., Pa.; Shelburne
Hansen, Einar; New York City; Madison
Harbison, Chas.; Lancaster, Ohio; Marlborough-Blenheim
Harding, C. R.; Council Bluffs, Iowa; Chalfonte-Haddon Hall
Hart, R. W.; New York, N. Y.; Chalfonte
Haussler, C. F.; Providence, R. I.; Chalfonte-Haddon Hall
Hawley, George S.; Bridgeport, Conn.; Traymore
Hayward, Ralph B.; Long Island City, N. Y.; Traymore
Head, Frederick T.; New York, N. Y.; Shelburne
Healy, J. F. A.; New York City.; Traymore
Hemmendinger, Samuel; Elizabeth, N. J.; Ambassador
Hendon, Chas. B.; Syracuse, N. Y.; Ritz-Carlton
Henshaw, Mr. G.; London, Eng.; Ambassador
Herrman, L. P.; Detroit, Mich.; Traymore
Hill, Herbert E.; Newark, N. J.; Dennis
Higgins, A. A.; Providence, R. I.; Traymore
Hill, William J.; Detroit, Mich.; Traymore
Hofner, John A.; New York, N. Y.; Strand
Hollinger, Albert Leroy; Chicago, Ill; Ambassador
Houghton, Carl R.; Connersville, Ind.; Traymore
Howland, Lewis A.; Far Rockaway, N. Y.; Chelsea
Howsmon, G. M.; Birmingham, Ala.; Ambassador
Hubley, George W.; Louisville, Ky.; Marlborough-Blenheim
Hull, Dean J.; St. Louis, Mo.; Ritz-Carlton
Hume, J. W., Jr.; Warren, Ohio; Ritz-Carlton
Humm, Albert W.; New York, N. Y.; Chalfonte
Humphreys, J. J.; Montreal, Canada; Traymore
Hunter, W. Q.; Tuckahoe, N. Y.; Traymore
Hurley, N. C.; Chicago, Ill.; Marlborough-Blenheim
Husted, E. E.; Newark, N. J.; Strand
Hyde, Edward B.; New York, N. Y.; Flanders

I

Imrie, Gordon: Worcester, Mass.: Dennis

J

Jabine, Thomas, New York, N. Y., Marlborough-Blenheim.
Jackson, Mark H., Syracuse, N. Y.; Traymore.
Jagger, Charles M.; Newark, N. J.; Dennis.
Jaques, C. F.; Aurora, Ill.; Brighton.
Jefferis, C. A.; Toronto, Can.; Ambassador.
Jenkins, Albert Fletcher; New York; Traymore.
Jennings, Robert J.; Yonkers, N. Y.; Knickerbocker.
Jewell, C. M.; Syracuse, N. Y.; Traymore.
Johnston, Ernest; Syracuse, N. Y.; Marlborough-Blenheim.
Johnson, H. J.; New York; Craig Hall.
Johnson, Roy W.; Milwaukee; Traymore.
Johnson, Wm.; Atlantic City.
Jones, Edwin A.; Milwaukee; Traymore.
Kah, C. L. C.; West Palm Beach, Fla.; Chalfonte-Haddon Hall.

K

Kahle, R. L.; St. Louis; Ritz-Carlton.
Karkazis, Alex; Lynn, Mass.; Traymore.
Karr, Fred; Kansas City; Ritz-Carlton.
Keenen, George E.; Bayonne, N. J.; Traymore.
Keller, Albert R.; Syracuse, N. Y.; Marlborough-Blenheim.
Keller, G. W.; New Haven, Conn.; Dennis.
Kelsey, J. B.; Waterbury, Conn.; Ambassador.
Kennedy, F. J.; New York; Ambassador.
King, Thomson,; Pittsburgh, Pa.; Strand.
Kingsbury, Charles R.; Philadelphia; Pennhurst.
Kirley, Arthur A.; Long Island City, N. Y.; Flanders.
Klees, A. L.; New York.
Klein, Alfred K.; New York; Traymore.
Klein, Bernard D.; Long Island City, N. Y.; Lelande.
Knight, G.; New York City; Chalfonte.
Knight, Wm. H.; Cleveland, O.; Chalfonte-Haddon Hall.
Koehler, Robert A.; Newark, N. J.; Dennis.
Kohlmeyer, K. H.; Fort Wayne, Ind.; Traymore.
Knowles, New York City; Ritz-Carlton.
Kolbe, John "Gas"; Richmond, Va.; Ambassador.
Kornmann, T. L.; Kalamazoo, Mich.; Brighton.
Krause, Charles; Cincinnati, O.; Ambassador.
Krausse, Charles C.; Baltimore, Md.; Knickerbocker.
Krell, M.; New York City; Ritz-Carlton.
Kukuck, Wm. G.; St. Louis; Shelburne.
Kuenhold, O. J.; Pres.; Cleveland, O.; Dennis.

L

Lambert, D. N.; Brooklyn, N. Y.; Breakers.
Lamont, W. D.; New York; Ambassador.
Lane, Abbot A.; Newark, N. J.; Dennis.
Langdell, J. C.; Jackson, Mich.; Ambassador.
Lawrence, H. F.; New York City; Ambassador.
Lebedjeff, V. V.; New York City; Marlborough-Blenheim.
Lebo, Willard E.; Paterson, N. J.; Chalfonte-Haddon Hall.
Lee, Earl; Atlantic City.
Lee, Martin C.; Detroit, Mich.; Traymore.
Leonard, William M.; Brooklyn; Ambassador.
Leuchtenberg, Wm. E.; New York; Ambassador.
Lindeman, A. L.; V. P.; Milwauke,; Shelburne
Lindermann, A. J.; Milwaukee; Shelburne.
Linderman, Garrett B., Jr.; Erie, Pa.; Traymore.
Litthe, Julius K.; Milwaukee; Traymore.
Little, Joseph Jr.; Chicago, Ill.; Brighton.
Little, S. E.; Lorain, O.; Ritz-Carlton.
Lloyd, Mrs. Edith M.; Philadelphia; Dennis.
Long, H. J.; New Brunswick, N. J.; Chalfonte.
Lordebl ,A. A.; Columbus, O.; Brighton.
Lucena, Joseph; Syracuse; Marlborough-Blenheim.
Lyford, C. D.; Minneapolis; Marlborough-Blenheim.
Lyon, Charles L.; Charleston, S. C.; Traymore.

M

MacLean, Allen D.; Pittsburgh; Marlborough-Blenheim.
MacQuarrie, Samuel T.; Boston, Mass.; Dennis.
Malone, George B.; Baltimore, Md.; Marlborough-Blenheim.
Major, W. A., Jr.; Palmyra, N. J.; Chalfonte-Haddon Hall.
Maloney, Martin, 2nd.; Ocean City, N. J.
Mandel, George Perley; New York; Traymore.
Manheim, S. H.; Cleveland, O.; Ambassador.
Mann, Harry; New York City; Marlborough-Blenheim.
Martell, Albert J.; V. P.; Grand Rapids, Mich.; Continental.
Martin, Raymond M.; New York; Marlborough-Blenheim.
Maurer, Rufus H.; New York; Marlborough-Blenheim.
McClenahan, R. W.; Philadelphia; Shelburne.
McConnell, Wm.; Washington, D. C.; Dennis.
McCouche, T. L.; New York; Marlborough-Blenheim.
McCoy, W. P.; Port Chester, N. Y.; Traymore.
McCusher, John F.; Phila.; 224 Seaside Ave.
McDermott, J. C.; Atlantic City.
McEnaney, Peter F.; New York; Traymore.
McGreevy, J. P.; Utica, N. Y.; Marlborough-Blenheim.
McGuire, James; Gloversville, N. Y.; Chalfonte-Haddon Hall.
McIlhenny, John D., Jr.; Philadelphia; Shelburne.
McKean, Norton; Albany, N. Y.; Traymore.
McKee, James; Brooklyn; Marlborough-Blenheim.
McPherson, J. H.; Boston, Mass.; Brighton.
Mehrman, John; Elizabeth, N. J.; Knickerbocker.
Meltzer, L. D.; Jersey City, N. J.; Morton.
Merchant, A. E.; New Orleans, La.; Shelburne.
Merton, Wilfred; Detroit, Mich.; Traymore.
Mills, William E.; Providence, R. I.
Millspaugh, George M.; Philadelphia; Brighton.
McKenna, Frank B.; Flushing, N. Y.
Montgomery, John E.; Birmingham, Ala.; Traymore.
Montz, Harold; Milwaukee; Traymore.
Moore, Lewis; Joliet, Ill.; Marlborough-Blenheim.
Moore, L. L.; Philadelphia; Traymore.
Moore, P. S.; W. New Brighton, N. Y.
Moran, Alfred B.; Detroit; Sterling.
Morehead, I. H., Jr.; Atlanta, Ga.; Traymore.
Morlock, H. A.; New York City; Ambassador.
Morrison, A. H.; Rockford, Ill.; Traymore.
Morse, C.; Greenwich, Conn.; Chalfonte-Haddon Hall.
Moses, Frank D.; Trenton, N. J.
Mudgett, A. P.; Wabash, Ind.; Ambassador.
Mulcare, Jos. A.; New York, N. Y.; Chalfonte.
Munyan, E. A.; Michigan City, Ind.; Traymore.
Murray, A. E.; Jackson, Miss.; Ritz-Carlton.

N

Naulin, Abner; Milwaukee, Wisc.; Marlborough-Blenheim.
Neal, Herbert; Long Island City, N. Y.; Traymore.
Newman, Leslie; Brookline, Mass.; Traymore.
Nichols, W. B., Pres.; Quincy, Mass.; Chalfonte.
Nicolaus, Fred G.; Cleveland, Ohio.; Knickerbocker.
Noble, J. A.; Lockport, N. Y.; Traymore.
Norrington, W. H.; New York, N. Y.; Traymore.
Norris, Warren A.; Lebanon, Pa.; Strand.
Norton, Arthur E.; Boston, Mass.; Haddon Hall.
Norton, H. A., Mgr.; Boston, Mass.; Traymore.
Norton, Walter F., 2nd Vice-Pres.; Nashua, N. H.; Chalfonte-Haddon Hall.
Norton, William J.; New York, N. Y.; Ambassador.

O

O'Donnell, J.; New York City; Marlborough-Blenheim.
O'Dowd, H. W.; Jersey City, N. J.; Chalfonte.
O'Kolski, Julius; New York, N. Y., Continental.
Obermeyer, Henry; New York, N. Y.; Dennis.
Odell, Frank; Breakers.
Oeckler, William C.; New York, N. Y.; Continental.
Oliphant, F. H.; Erie, Pa.; Traymore.
Oran, R. M.; Cicero, Ill.; Ritz-Carlton.
Ornboff, Geo.; Baltimore, Md.; Marlborough-Blenheim.
Osterhoudt, J. P.; Schenectady, N. Y.; Traymore.
Osterman, P. C.; Elizabeth, N. J.; Dennis.

P

Packer, M. L.; Columbus, Ohio.; Shelburne.
Papworth, H. M.; Shelburne.
Parke, Inc., William; New York, N. Y.; Strand.
Parker, Charles W.; St. Louis, Mo. Shelburne.
Parker, George W.; St. Louis, Mo.; Traymore.
Parsons, F. E.; Boston, Mass.; Chalfonte-Haddon Hall.
Payne, 2nd., Calvin N.; Erie, Pa.; Traymore.
Payne, Paul T.; Indianapolis, Ind.; Marlborough-Blenheim.
Payne, T. P.; Brooklyn, N. Y.; Dennis.
Peck, John V.; Detroit, Mich.; Traymore.
Persing, Don.; Jersey City, N. J.; Morton.
Perretti, Amato; New York, N. Y.; Marlborough-Blenheim.
Peterson, William G.; Yonkers, N. Y.; Traymore.
Pevear, J. S.; Birmingham, Ala.; Ritz-Carlton.
Phararoh, Frank H.; Phila., Pa.; Traymore.
Phillips, C. B.; Bronx, N. Y.; Ambassador.
Pickering, F. M.; Anderson, Ind.; Chalfonte-Haddon Hall.
Plunkett, Charles S.; Newark, N. J.; Strand.
Prescott, J.; Webster, Mass.
Price, Douglas E.; Pittsburgh, Pa.; Traymore.
Printz, Chas. H.; Cleveland, Ohio.; Traymore.
Putnam, E. F.; Greenwich, Conn.; Ambassador.

Q

Quinn, Joseph F.; Brooklyn, N. Y.; Traymore.

R

Ralston, W. S.; Pitts., Pa.
Rasmers, Fred E.; Baltimore, Md.; Dennis.
Rasch, William T.; New York, N. Y.; Marlborough-Blenheim.
Ratcliff, Thomas C.; Baltimore, Md.; Traymore.
Rawlings, Howard C.; Milwaukee, Wis.; Traymore.
Reedy, A. J.; Battle Creek, Mich.; Ambassador.
Reinicker, C. E.; Philadelphia, Pa.; Chalfonte-Haddon Hall.
Reichert, Ludwig; Brooklyn, N. Y.; Astor.
Redding, O. D.; Columbus, O.; Traymore.
Renaud, Jr., W. H.; New Orleans, La.; Brighton.
Reynolds, W.; New York City; Marlborough-Blenheim.
Ridburg, B. W.; New York City; Traymore.
Rieser, Sylvester C.; St. Louis, Mo.; Marlborough-Blenheim.
Ripley, Edwin F.; East Orange, N. J.; Chalfonte.
Robnett, Edwin Howard; Newark, N. J.; Traymore.
Robertson, Alexander Ewing; Fort Wayne, Ind.; Traymore.
Roberts, C. V.; Phila., Pa.; Chalfonte-Haddon Hall.
Roberts, Earl W.; Detroit, Mich.; Traymore.
Robertshaw, G. A.; Youngwood, Pa.; Ambassador.
Robertshaw, John A.; Ambassador.
Roche, J. F.; Chicago, Ill.; Ambassador.
Rockwell, W. F.; Pittsburgh, Pa.; Marlborough-Blenheim.
Rogers, C. J.; Chicago, Ill.; Traymore.
Rogers, J. A.; New York City, Ambassador.
Rogers, William G.; Cleveland, Ohio.; Brighton.
Rolston, R. J.; Philadelphia, Pa.; Traymore.
Rollins, S. R.; Baltimore, Md.; Ambassador.
Romaine, H. S.; Flushing, N. Y.; Chalfonte-Haddon Hall.
Roper, Mabon, P.; Rockford, Ill.; Traymore.
Roth, R. E.; Loraine, Ohio; Ritz-Carlton.
Rothert, E. R.; Cincinnati, Ohio; Ambassador.
Rosa, John M.; Newark, N. J.; Chalfonte-Haddon Hall.
Ruchel, H. H.; Ft. Wayne, Ind.; Ambassador.
Ryerson, William Newton; Philadelphia, Pa.; Shelburne.

S

Sackett, James A.; New York, N. Y.; Chalfonte.
Saffery, William E.; New York, N. Y.; Flanders.
Sample, J. D.; Birmingham, Ala.; Chalfonte-Haddon Hall.
Samuels, J. Adrian; New York, N. Y.; Traymore.
Schall, Henry D.; New York, N. Y.; Traymore.
Schaupp, J. W.; Pittsburgh, Pa.; Shelburne.
Schenker, A. W.; West New York, N. J.; Chalfonte.
Schmidt, Gustave, F.; Hollywood, Calif.; Brighton.
Schmitz, Karl B.; Berea, Ohio; Dennis
Schoenberger, W. J.; Cleveland, O.; Ritz-Carlton.
Schott, R. A.; Chicago, Ill.; Ambassador.
Schwing, Casper Frederick; New York, N. Y.; Brighton.
Scott, H. G.; New York City; Ritz-Carlton.
Seeley, H. K.; Syracuse, N. Y.; Marlborough-Blenheim.
Seiffer, M. F.; G.; Phila., Pa.; Brighton.
Sell, Edw.; New York, City; Strand.
Selliman, F. E.; New York City; Marlborough-Blenheim.
Seldman, Nils T.; New York, N. Y.; Traymore.
Sexton, W. Elbert; Baltimore, Md.; Dennis.
Shear, Chester A; New York, N. Y.; Chalfonte.
Shenton, H. E.; Phila., Pa.; Dennis.
Shivers, Paul F.; Wabash, Ind.; Ambassador.
Simler, O. P.; Louisville, Ky.; Shelburne.
Simon, Raymond M.; Phila., Pa.; Traymore.
Slack, G. H.; G.; Utica, N. Y.; Marlborough-Blenheim.
Slater, F. R.; New York City; Marlborough-Blenheim.
Smith, Bertram; Phila., Pa.; Traymore.
Smith, Chas. S.; Phila., Pa.; Shelburne.
Smith, George H.; New York, N. Y.; Traymore.
Smith, H.; G.; New York City; Monticello.
Smith, Wilson A.; Chicago, Ill.; Traymore.
Smith, William P.; Brooklyn, N. Y.; Strand.
Sovik, Robert A.; Poughkeepsie, N. Y.; Traymore.
Spangenberg, Chas. F.; Cleveland, Ohio; Ambassador.
Spear, L. E.; Kalamazoo, Mich.; Ritz-Carlton.
Spinney, Andrew G.; Portland, Me.; Ambassador.
Spragle, T. J.; Indianapolis, Ind.; Altemus.
Spring, W. F., Mgr.; Cape May, N. J.
Springstead, H. J.; Brooklyn, N. Y.; Shelburne.
Stanley, S. W.; Atlantic, Mass.; Fredonia Hotel.
Stark, W. E.; Cleveland, Ohio.; Shelburne.
Steep, James B.; Indianapolis, Ind.; Strand.
Steinhorst, Theo.; G.; Utica, N. Y.; Marlborough-Blenheim.
Stetser, Jesse R.; Philadelhhia, Pa.; Traymore.
Stevens, Chas. W.; Columbus, Ohio.; Traymore.
Stevens, E. M.; Columbus, Ohio; Traymore.
Stevens, F. E.; Columbus, Ohio; Traymore.
Stewart, John; Galveston, Texas; Breakers.
Stockton, W. V.; Albany, N. Y.; Traymore.
Stotz, Louis; Philadephia, Pa.; Traymore.
Stretch, C. C.; New York City; Ambassador.
Suverkrop, E. A.; Dayton, Ohio; Ambassador.
Swartwout, Everett W.; New York City; Dennis.

T

Tabler, H. C.; St. Louis, Mo.; Ritz.
Taylor, Joseph D.; Boston, Mass.; Traymore.
Te Pas, Edmund J.; Cleveland, Ohio; Traymore.
Terhune, Ralph D.; Yonkers, N. Y.; Shelburne.
Terry, P. L.; Newark, N. J.; Dennis.
Thornton, George T.; Brooklyn, N. Y.; Ambassador.

Tinnerman, A. H.; Cleveland, Ohio; Marlborough-Blenheim.
Torrey, A. M.; Phila., Pa.; Shelburne.
Tozer, C. B.; Erie, Pa.; Ritz-Carlton.
Trainer, J. E.; Columbus, Ohio; Marlborough-Blenheim.
Trew, A. S.; Pub. Utility Div.; Detroit, Mich.; Traymore.
Tully, Walter Busill; Camden, N. J.; Shelburne.
Turner, A. W.; Erie, Pa.; Traymore.

V

Vaughn, Jr., Geo.; Bayonne, N. J.; Chalfonte.
Van Brunt, A. J.; Newark, N. J.; Traymore.
Van Vliet, Rutherford; Stapleton, S. I., N. Y.; Chalfonte-Haddon Hall.
Von Thaden, Harold; New York, N. Y.; Traymore.

W

Wagoner, Bennett; Royersford, Pa.; Shelburne.
Wagner, Herbert L.; Lockport, N. Y.; Traymore.
Wahl, Edward; Baltimore, Md.; Chalfonte-Haddon Hall.
Walker, A. T.; Phila., Pa.; Shelburne.
Walker, H. H.; Newark, N. J.; Chalfonte-Haddon Hall.
Walsh, Robt. A. B.; G.; St. Louis, Mo.; Shelburne.
Ward, Jr., William E.; Jersey City, N. J.; Morton.
Wardell, Chas. W.; Philadelphia, Pa.; Traymore.
Way, S. B.; G.; Racine, Wis.; Shelburne.
Weadley, William F.; Kalamazoo, Mich.; Traymore.
Weir, E. G.; Dowagoe, Mich.; Ambassador.
Wells, Norman W.; Petoskey, Mich.; Ambassador.
Welzin, Charles J.; Yonkers, N. Y.; Pennhurst.
West, Wm. H.; Boston, Mass.; Dennis.
Wharton, Frank D.; Syracuse, N. Y.; Breakers.
Wheatley, Wm. J.; East Orange, N. J.; Traymore.
Whitelaw, H. Lehigh; New York, N. Y.; Marlborough-Blenheim.
Whiteman, Samuel D.; Ashtabula, Ohio; Ritz-Carlton.
Whittier, Horace R.; Pequabuck, Conn.; Shelburne.
Wiberley, George; New York, N. Y.; Chalfonte.
Wilbuch, Glynn E.; Pittsbrugh, Pa.; Dennis.
Wilder, E. L.; Rochester, N. Y.; Marlborough-Blenheim.
Wilcox, R. C.; Waterbury, Conn.; Ambassador.
Wilkinson, Z. C., Sales Mgr.; Warren, Ohio.; Ritz-Carlton.
Will, Philip; Rochester, N. Y.; Eastbourne.
Willard, Edward A.; Portland Me.; Ambassador.
Willard, H. A.; Baltimore, Md.; Traymore.
Williamson, Chas. W.; New York City; Ambassador.
Williamson, W. W.; Royersford, Pa.; Shelburne.
Wills, John D.; Phila., Pa.; Traymore.
Wilson, Edward R.; Phila., Pa.; Marlborough-Blenheim.
Wiske, Prescott B.; Brooklyn, N. Y.; Traymore.
Witherby, Edwin E.; Boston, Mass.; Traymore.
Wolcott, Chas. W.; Atlanta, Ga.; Traymore.
Wolff, M. S.; New York, N. Y.; Shelburne.
Wood, Richard S., Pres.; New York, N. Y.; Ambassador.
Woodward, Harry K.; Atlanta, Ga.; Traymore.
Wilmoth, Russell Woods; Sharples, W. Va.; Marlborough-Blenheim.
Woodworth, Frank, Mgr.; Fremont, Neb.; Traymore.
Worrall, W. R.; Milwaukee, Wis.; Traymore.
Wyman, G. S.; Erie, Pa.; Traymore.

Y

Yeager, Edith; Yonkers, N. Y.; Chalfonte.
Yetter, Louis N.; Atlantic City, N. J.
Yorley, F. LeRoy; Phila., Pa.; Chalfonte-Haddon Hall.
Young, Robert W. H.; Elrama, Pa.; Ambassador.
Younkins, V. D.; Pittsburgh, Pa.; Ambassador.

Z

Zingg, F. E.; East Orange, N. J.; Shelburne.
Zuhars, A. W., Pres.; Columbus, Ohio; Ambassador.

Section II

Registration from 12 m. to 4 p. m., October 11th

A

Adams, Henry Clay; Pittsburgh, Pa.
Alexander, Edward R.; Cleveland, O.; Traymore.
Almberg, H .E.; New York, N. Y.
Arnold, G. M.; Chicago, Ill.; Chalfonte-Haddon Hall.
Asendorf, Carl F.; Chicago, Ill.; Traymore.
Avengno, Edward N.; New Orleans, La.; Shelburne.

B

Babcock, Leon F.; Danbury, Conn.; Traymore.
Bailey, E. P. Jr.; Cleveland, O.; Shelburne.
Barr, H. E.; Mercer, Pa.; Ambassador.
Barringer, George A.; New York City, Chalfonte-Haddon Hall.
Barton, R. T.; Marion, Ind.; Altemus.
Bates, Stanley Francis; Macon, Ga.; Ambassador.
Baumgartner, H. P.; New York City; Dennis.
Bees, Jos.; Scranton, Pa.; Chalfonte-Haddon Hall.
Bethea, R. O.; Madison, Ind.; Iroquois Hotel.
Blanchard, Frank LeRoy; New York, Traymore.
Bleach, Chas. A.; Pittsburgh, Pa.; Ambassador.
Bliss, Ernest M.; Paterson, N. J.; Shelburne.
Blunt, Stanhope E.; St. Paul, Minn.; Marlborough-Blenheim.
Bishoff, Mr. F. T.; New York City; Brighton.
Bonsall, Robert F.; Baltimore, Md.; Traymore.
Bradshaw, O. L.; Durham, N. C.; Marlborough.
Briggs, J. C.; Columbus, O.
Brock, Louis; Chicago, Ill.; Chalfonte-Haddon Hall.
Brown, Jack G.; Detroit, Mich.; Traymore.
Brown, R. D.; Milwaukee, Wis.; Traymore.

C

Cahill, F. G.; Athens, O.; Shelburne.
Calvert, A. T.; New York City; For one day only.
Cameron, J. Robert; New York; Shelburne.
Cameron, Reid A.; Chicago, Ill.; St. Charles.
Capron, J. D.; Burlington, N. J.; Traymore.
Cartwright, G. P.; Phila., Pa.
Caret, Logan W.; Okla City, Okla.; Breakers.
Carson, Harry Y.; Birmingham, Ala.; Brighton.
Cassell, W. H.; Baltimore, Md.; Traymore.
Cauley, Frank F.; Chicago, Ill.; Strand.
Chaplin, W. J.; Pittsburgh, Pa.; Ventnor.
Chase, H. D.; Athens, O.; Shelburne.
Clark, Hale Austin; Detroit, Mich.; Traymore.
Clark, Horace H.; Chicago, Ill.; Chalfonte-Haddon Hall.
Clark, Robert K.; Chicago, Ill.; Dennis.
Cleary, Richard F.; Newark, N. J.; Knickerbocker.
Cochran, Ernest; New York City; Traymore.
Cole, Geo. M.; Plattsburg, N. Y.; Ambassador.
Collins, D. J.; Philadelphia, Pa.; Traymore.
Corrigan, John D.; New York City; Marlborough.
Coughlin, Francis J.; Greenwich, Conn.; Chalfonte.
Crane, Wm. M.; New York City; Marlborough.
Crawford, C. M.; Greensboro, N. C.; Ambassador.
Crenshaw, L. G.; St. Louis, Mo.; Ambassador.
Crevelin, J. D.; Mercer, Pa.; Ambassador.
Crilly, Roger; Elizabeth, N. J.; Craig Hall.
Crilly, Roger Leo; Elizabeth, N. J.; Craig Hall.
Crossman, L. B.; Boston, Mass.; Ambassador.
Cudzow, George; New York City; Chalfonte-Haddon Hall.

D

Darrah, S. G.; Chelsea Hotel.
Dains, Harry P.; W. Collingswood, N. J.; Traymore.
Daniels, Ralph E.; Boston, Mass.; Ambassador.
Davis, J. D.; Pittsburgh, Pa; Princess.
Davis, J. W.; New York City; Traymore.
Debevoise, Paul; New York; Marlborough.
Devine, William A.; New Haven, Conn.; Chalfonte-Haddon Hall.
DiCarlo, Anthony; New York, N. Y.; Chalfonte-Haddon Hall.
Diehl, Wm. L.; New York, N. Y.; Dennis.
Dillon, Miss Mary E.; Coney Island, N. Y.; Chalfonte-Haddon Hall.
Donnelly, A. E.; L. I. City; Strand.
Dodge, Benton C. L.; Cleveland, O.; Ambassador.
Drydale, H. H.; Chicago, Ill.; Shelburne.
Duggan, F. P.; Lewistown, Pa.; Dennis.
Dunbury, Thomas; Boston, Mass.; Sterling Hotel.
Durrell, C. M.; Spencer, Mass.; 21 S. Indiana ave.

E

Eberspeacher, Harry; Newark, N. J.; Ritz-Carlton.
Ehrman, B. T.; New York City; Traymore.
Elward, E.; New York City; Shelburne.
Engel, Frank A.; Elizabeth, N. J.; Craig Hall.
Engand, C. V.; Creston, Ia.; Traymore.

F

Farren, J. W.; Cleveland, O.; Dennis.
Ferguson, J. E.; Bridgeport, Conn.
Fife, H. S.; Philadelphia, Pa.; Commercial.
Fisher, Geo. T.; New York City; Traymore.
Forker, John N.; Pittsburgh, Pa.; Marlborough.
Frame, Robert; Phila., Pa.; Shelburne.
Frary, Charles O.; Chicago, Ill.; Shelburne.
Fritz, Edward A.; Cleveland, O.; Ritz-Carlton.
Fushes, Edgar L.; Baltimore, Md.; Haddon Hall.

G

Gaunt, Floyd; Anderson, Ind.; Knickerbocker.
Gernhardt, W. G.; New York City; Strand.
Getting, H. W.; Cape May, N. J.
Gibson, F. A.; Athens, Ga.; Ambassador.
Gleason, Wm. H.; Kalamazoo, Mich.; Ritz.
Gmeiner, Elmer V.; Knoxville, Tenn.; Traymore.
Grady, Stanley; Philadelphia, Pa.; Brighton.
Greene, H. S.; Aurora, Ill.; Strand.
Greening, G. F.; Brooklyn, N. Y.; Chelsea.
Grissom, Roland L.; Natches, Miss.; Strath-Haven.
Gurney, J. H.; Aurora, Ill.; Strand.

H

Hagaman, J. L. New York City; Traymore.
Hahn, C. A.; St. Louis, Mo.; Ambassador.
Hall, E. A.; Toledo, O.; Knickerbocker.
Halp, W.; Newark, N. J.; Chalfonte-Haddon Hall.
Haase, E.; Milwaukee, Wis.; Marlborough.
Halvorson, Hawthorne P.; Boston, Mass.; Ambassador.
Hammer, M. S.; Oswego, N. Y.; Knickerbocker.
Harger, F. O.; New York City; Glaslyn-Chatham.
Harvey, Lyle C.; Cleveland, O.; Shelburne.
Harris, M. G. L.; New York City; Chalfonte-Haddon Hall.
Hayward, H. W.; New York City; Ambassador.
Heyn, Henry M.; Detroit, Mich.; Ambassador.
Hobbis, Thomas Rogers; Allendale, N. J.; Shelough-Blenheim.
Honeywell, M. C.; Wabash, Ind.; Ambassador.
Horton, E. J.; Pittsburgh, Pa.; Shelburne.
House, G. O.; St. Paul, Minn.; Dennis.
Huef, Harold G.; Minneapolis, Minn.; Marlborough-Blenheim.
Houston, Chas. L.; New York City; Traymore.
Howard, T. C.; Boston, Mass.; Craig Hall.
Hughes, R. C.; Anderson, Ind.; Knickerbocker.
Hume, Walter H.; New York; Traymore.
Hutchinson, W. P.; Bridgeport, Conn.; Traymore.
Hutton, Margaret; Yonkers, N. Y.; Shelburne.

I

Isley, H. G.; Raleigh, N. C.; Marlborough.

J

Jackman, Edward G.; Toronto, Ont.; Chalfonte-Haddon Hall.
Jayne, David W.; Pittsburgh, Pa.; Traymore.
Jenkins, Jay E.; Los Angles, Calif.; Shelburne.
Johnston, R. W.; Chicago, Ill.

K

Kahn, Albert M.; Hamilton, O.; Shelburne.
Kanwisher, C. Walter; Baltimore, Md.; Chalfonte-Haddon Hall.
Kayler, H.; Mercer, Pa.; Ambassador.
Kelly, Mr. J. H.; Rochester, N. Y.; Strand.
Kendall, T. H.; Pitts., Pa.; Ambassador.
Kennedy, Clarence A.; Stapleton, N. Y.; Chalfonte.
Kennedy, Thomas F.; New York, N. Y.; Traymore.
Kennedy, Virgil W.; Terra Haute, Ind.; Ambassador.
King, H. O.; Boston, Mass.; Chalfonte.
Kirchmer, George M.; Brooklyn, N. Y.; Ambassador.
Kirkpatrick, John J.; Holyoke, Mass.; Traymore.
Kite, Wilson J., Jr.; New York, N. Y.; Chalfonte.
Klein, August C.; Brooklyn, N. Y.; Ritz-Carlton.
Knapp, Frank H.; Aurora, Ill.; Traymore.
Knolton, H. B.; Malden, Mass.; Marlborough.
Krah, E. A., Jr.; Pittsburgh, Pa.; Shelburne.
Kurtz, P. B.; Chicago, Ill.; Traymore.
Kusweter, Harold; Maeden, Mass.; Marlborough-Blenheim.

L

Lacey, W. R.; Milwaukee, Wis.; Marlborough.
Lange, George; New York, N. Y.; Dennis.
Lattimer, Gardner; Columbus, O.; Traymore.
Leinroth, J. P.; Newark, N. J.; Dennis.
Levidon, J. B.; New York City; Traymore.
Lewis, Richard H.; Pittsburgh, Pa.; Traymore.
Lindquist, A. E.; Cleveland, O.; Chalfonte.
Lindstrom, B. E.; Aurora, Ill.; Strand.
Lloyd, Howard M. J.; Philadelphia, Pa.; Shelburne
Lucas, Thomas J.; Chicago, Ill.; Ambassador.
Lunn, John A.; New Haven, Conn.; Dennis.
Lynch, M. E.; New York City; Traymore.
Lynn, Frederick W.; Newark, N. J.; Ritz-Carlton.
Lyons, B. F.; Kewanee, Ill.; Ambassador.

(Registration Continued To-morrow)

Incineration by Gas *

Report of the 1926 committee discusses important details

A. A. Naulin

Chairman, The Home Incinerator Company, Milwaukee, Wis.

THE Commercial Section of the American Gas Association decided a year ago that there was a pressing need for authentic data on incineration by gas and appointed, shortly after the Atlantic City Convention, the infant committee of the Commercial Section.

The Gas Incineration Committee in its labors during the year has found that there is a real need for information on this subject for the gas executive, for his merchandising department, for the interested layman, and for the manufacturer.

With accurate information in the hands of those previously referred to, there is a tremendous possibility for building up gas utilization for incineration by gas for many reasons which will be covered later, and there is no question about the fact that there is need for closer co-operation between gas companies, the public, and manufacturers of successful gas incineration appliances.

Because of the fact that the committee found such a lack of accurate information, parts of this report will be quite elementary, but we feel that, with the start of a solid foundation, future reports on incineration by gas will contain more specific facts and data on market possibilities and merchandising methods than is possible to report at this time.

The promotion of incineration by gas at the source is of great value to the gas industry. The use of gas for this purpose is of untold value to the layman and customer. The use of gas for this purpose is very interesting to the architect and modern home builder as he cannot afford to overlook suggestions of increased safety, health, sanitation, and comfort for the occupant of the home to be built or sold. The use of gas for domestic incineration is of interest to community health officers, fire department heads, fire prevention bureaus, and other civic authorities interested in the promotion of sanitation, health and safety.

Statistics Regarding Destruction of Household Waste in the United States Today

Household refuse disposal is receiving an ever-increasing amount of attention from municipal authorities, engineers, and the general public. This accelerated interest leads to a realization of the very primitive methods of waste disposal still employed by most American communities and to a consequent desire for improvement, because of the fact that incipient development of contagious diseases, their resultant spread, and, occasionally, epidemics from a single case are always in some manner affected by, and sometimes directly affected by, the prevailing order of handling and disposing of what is called municipal refuse.

Discussion and Statistics

Domestic refuse of all sorts consists of what people discard and desir eremoved from their homes, without expectation of receiving payment in return; in fact, the material which people must have removed at some cost, direct or indirect, to themselves or to the community. Obviously, such refuse, valueless to the individual, can have but little if any value to the community or to any corporation undertaking to dispose of it; and any value that it does possess depends upon its being susceptible to treatment on a large scale, at comparatively small cost.

In attempting to collect and reduce to intelligible form the data existing on the subject of disposal of municipal waste in American towns in early stages, it has been very difficult to procure accurate and extended accounts that are of value as records.

The Individual Method of Disposal

Those people who pay any attention to the subtect are familiar with garbage dumps in all stages of beginning, growth, and completion, since there is no release from the ever-present evil. In the early days of any town, the vacant lots in the suburbs are garnished with all sorts of refuse matter, until some strong objection is made by the property owner. As the town grows, this refuse is consolidated at convenient points where low ground offers an excuse or roads need to be raised in grade. The dumps then include putrescible matter which under the hot sun of summer gives out noxious odors. A ravine or valley on the line of a small stream becomes a favorite place of deposit; or ground excavated for sand, clay, gravel, or stone offers a favorable point because a large quantity can be disposed of in a small area. The cartmen, being under no restriction, select the nearest place to dump their loads, where there is least trouble or objection. Sometimes ashes or earth covers the surface, but as it is nobody's business to see that the dumps are covered, nobody cares much for the consequences.

The deposit of organic matter in thin layers upon ground fully exposed to the salutary influences of light and air is far more sanitary than when the putrescible waste is buried in mass. Decomposition in the open air proceeds rapidly by the propagation of aerobic bacteria which, assisted by the absorbent action of the earth, resolve the compounds into simpler forms, while the disengaged gases are oxidized by the air.

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*A Report of the Commercial Section, A. G. A. Convention, Atlantic City, Oct. 11-15, 1926.

Tipping Into Water

Towns on the seaboard, that could conveniently do so, formerly dumped everything overboard, regardless of consequences. New York City for many years sent outside the harbor thousands of tons of waste which ultimately floated to neighboring shores and gave rise to endless complaints. This was stopped, in part, by Col. G. E. Waring, and of late has wholly ceased, except when the work of disposal is interrupted by fires, or other accidents at the reduction plant.

Many of the inland cities on the great rivers continue to use the primitive method of stream dumping. A report made by the Health Commissioner of a Western city, some years ago, gave figures of startling magnitude. According to this report, "eight cities dumped into the Mississippi River 152,675 tons of garbage, manure and offal; 108,250 tons of night-soil; and 3,765 animals. Four cities on the Missouri River discharged 36,110 tons of garbage; 22,400 tons of night-soil; and 31,160 dead animals. Five cities on the Ohio River dumped 46,700 tons of garbage; 21,150 tons of night-soil; and 5,100 dead animals."

Summary

A review of the subject shows that collections every day or every other day, depending on the local circumstances, and disposal by incineration is the only satisfactory method so far developed. This procedure eliminates all chance of subsequent effects; such as pollution of rivers, creeks, and stagnant pools. It also overcomes the abuse of the landscape and the atmosphere in the neighborhood of rubbish dumps, which are always surrounded by some class of residences, and also the possible chance of disease resulting from residential construction on ground filled with decaying matter affected by moisture.

Because of the general importance of the subject to the entire population, it is in order to suggest that incineration of household refuse and garbage should take place at the source and should be part of the general equipment of buildings considered by architects and incorporated in the plans and specifications. Such procedure would ultimately result in a much more sanitary disposal system for such other municipal refuse as has to be taken care of.

Considering what we benefit from the municipal sewer system, it becomes opportune to visualize the unquestionable advantage that garbage incineration at the source would provide for the American community, if the objection could be overcome.

Advantages Gained

Some of the advantages that would result in the community would be:

1. Reduced expenditures, required for the municipal department that handles the subject.
2. The elimination of the so-called "sanitary" fill.
3. The elimination from public proximity of the garbage wagon.
4. Reduction of river pollution.
5. The elimination of swill-fed pork and swill-fed milch cattle, which two items as they stand are indictment of the political order which permit them to exist.

The Process of Incineration

Our composite garbage is made up of water, fats of various kinds, proteins, carbohydrates, and a certain amount of inert material which we shall choose to call ash. The question now arises, "What happens to these different food constituents during the incineration process?" A study of this nature is extremely important, because it bears directly on many questions relative to incineration, and because incomplete or faulty knowledge on this subject has been the reason for failure of many household incinerators to function properly and efficiently. We shall take up each one of the above mentioned constituents separately and after hastily reviewing their properties for the lay reader, proceed to follow through their reduction in the incinerator.

Water

Very naturally, our discussion will begin with water. Before any of the combustible material in the garbage will burn readily, it is necessary that it be dried or dessicated; in other words, the water must first be removed before combustion of the garbage will proceed. Consequently, the problem of disposing of the moisture is important. Assuming the original content of our refuse to be at 70° F., we know from the laws regarding steam formation that 1,112 B.t.u. of heat are required to vaporize every pound of water existing originally in the garbage. Further, in order that the water so vaporized will not recondense on the inside of the flue pipe or the incinerating vessel itself, there must be a thermal head sufficient to carry the vaporized moisture from the confines of the incinerator. Assuming further that the flue gases from the incinerator leave at 350° F., the total heat in one pound of this vaporized moisture will be approximately 1,220 B.t.u. representing about 2½ cubic feet of manufactured gas, as the requirement necessary in producing this complete vaporization. If we expand now on an analysis of the water problem as it exists in the incinerator, we come to the interesting conclusion that without question the quantity of gas required for incinerating garbage is largely measured by the amount of water originally present and which must be vaporized.

Fats

The question of fat in household waste and in the process of incineration is extremely important because it is the fat content of the refuse which is largely responsible for offensive odors from the chimneys of incinerators improperly designed.

Fats being composed entirely of carbon and hydro-

PRODUCTION OF REFUSE IN SELECTED AMERICAN CITIES

City	Year	Population	Pounds per Capita per Annum. Garbage	Ashes		Refuse	Total
Baltimore	1917	589,621	211	...	...	..	...
Boston	1917	781,628	155	829	...	21	1,005
Buffalo	1910	423,715	140	652	...	58	860
Chicago	1912	2,333,687	109	...	700	..	809
Cleveland	1909	543,000	165	...	312	..	477
Detroit	1916	571,784	168	...	...	..	...
Kansas City	1917	300,215	299	...	...	..	...
Los Angeles	1918	622,000	151	...	...	25	176
Milwaukee	1919	457,000	142	35	...	8	185
Nashville	1905	84,227	58	...	832	..	890
New York	1908	4,258,387	185	913	...	88	1,186
Philadelphia	1917	1,709,518	146	...	...	..	...
St. Louis	1916	757,309	164	...	...	..	...
St. Paul	1917	247,232	118	...	...	..	...
San Francisc o	1909	409,500	323	70	...	309	702
Washington, D. C.	1915	359,000	286	443	...	81	810

gen, with the exception of possibly very small amount of sulphur and phosphorus, are practically burned up completely if enough oxygen is present. Actual combustion must take place without decomposition and without subsequent distillation. Herein lies one important function of an incinerator. It should be so constructed, that, even if the distillation products from the composition of the fat in the incinerator may form subsequent to their entering the chimney, enough heat and oxygen should be available to completely burn these products of decomposition to the elementary gases, carbon dioxide and water. If the incinerator fails to do this, the odor of burning fat will not only pervade the house, but the decomposition products will line the flue pipe and the chimney and the probability is that the whole neighborhood will suffer from the effects of this incomplete incineration.

The Nature of Garbage and Other Household Waste and Quantities Found in the Average Household

Up to the present time, data on the exact nature of household refuse is very meager, because interest taken by municipalities in the systematic destruction of such refuse has been of comparatively recent origin. It is true that metropolitan cities such as New York, Chicago, Milwaukee, as well as many foreign large cities, have for many years collected their municipal household refuse and removed it to some distant point where its presence would not cause unpleasantness, yet, scientific disposal by reduction or incineration, which disposal would require a considerable amount of research work regarding the nature and quantities of household work, has been, as stated above, rather undeveloped, and consequently, data as given in this paper, although it represents our present day analysis of the subject, is quite capable of amplification during the next few years.

Resuming now our studies on the burning of fats, we can very readily see that a mixture of odors comprising acrolein, ammonia, phosphorus and sulphur compounds, all mixed neatly together and rising from the chimney pot of an incinerator or through the incinerator itself, will give us an atmosphere that is almost untenable. Remembering further that all these compounds are capable of being burned completely into carbon dioxide and water, it should appear to the reader and rightly so, that the proper incineration of fats, for one thing, is just a matter of proper design of an incinerator.

Proteins

The name "protein" is given to certain colorless non-crystalline substances which compose, to a large extent, the solid constituents of animal tissues and plant cells. They are identified and distinguished from the other solid constituents of plants and animal matter, such as fat and carbohydrates, by certain chemical reactions. The nature of the proteins and their chemical constitutions show them to be extremely complex compounds. It is generally supposed that in them lies the secret of life's processes. Up to this time we have been unable to solve the structure of the protein molecule. The actual number of proteins is almost countless, but for our purpose the following percentage composition represents the minimum and maximum elemental content in percentages as found in proteins:

Carbon	50 to 55%
Hydrogen	6.9 " 7.3
Nitrogen	15 " 19
Oxygen	19 " 24
Sulphur	0.3 " 2.4

Among the simple proteins may be mentioned, egg albumin and gelatine. The proteins can be decomposed in a series of simpler compounds, amongst which may be mentioned "arginine" and amino acid derivatives, as well as indole, skatole, and pyrrole, which are generally the aromatic compounds found in animal waste. Unless these products are not completely burned, their entrance into the atmosphere

surrounding the incinerator will cause extreme unpleasantness.

Carbohydrates

The carbohydrates which represent the last group of elementary food constituents may be defined as those organic compounds which contain carbon, hydrogen , and oxygen, the hydrogen and the oxygen being combined in the proportion as represented by ater. **This fact has given rise to the name** hydrate of carbon or carbohydrate. They represent the products of plant life and are also found, but not so extensively, in animal tissues.

Grape sugar, fruit sugar, cane sugar, starch, and cellulose are vegetable products classified as carbohydrates, while milk, sugar, glycogen and occasionally grape sugar are derived from the animal organism.

When carbohydrates, especially cellulose and sugar, of which cane sugar may be taken as an example, are heated in the absence of insufficient air, acetic acid, which we know as vinegar, methyl, or wood alcohol, acetone and acetaldehyde are principally formed. A common example of the products formed by such a process is in the destructive distillation of wood. As can be seen from the above list of products formed during the decomposition of carbohydrates, they all have an odor which is decidedly disagreeable and penetrating, especially the acetic acid and the acetone.

Ash

From a standpoint of incinerator operation and design, the nature, character, and quantity of ash in the original refuse has no importance, and consequently, we will not consider it further at this point.

It is hoped that the general layman and the reader of this report will have sufficient evidence to at least know **where the odors come from** when burning garbage. We are all acquainted with fires made in the back part of the yard or in the alleys where considerable waste paper was burned, either on the ground or in wire baskets. In this waste paper was thrown, intentionally or accidentally, a certain amount of garbage. After the paper had "burned itself out," insufficient heat to thoroughly burn the garbage caused a most terrible odor to arise from this smoldering pile of refuse. These odors can be identified as originating in decomposition products from the fats, the proteins and the carbohydrates originally present in the refuse. If an incinerator for domestic refuse is not designed properly or constructed in such a manner that sufficient air and a sufficient quantity of heat is present to take these decomposition products as they are being formed and burn them to completion, they will escape into the air and cause considerable annoyance in the neighborhood; and, where there are faulty draft conditions, the products of such a destructive distillation may never reach to the top of the chimney, but may seep out through the cracks between the lengths of flue pipe, or creep out from under the lid of the incinerator itself, until the whole house is filled with these nauseating products.

Gas--The Ideal Fuel for Domestic Incineration

Every gas consumer should be made to recognize the necessity and advantages of a domestic gas incineration plant—in home, apartment house, hotel, or restaurant. Though the idea is so novel as not yet to be fully understood by the individual home-owner or prospective builder, nevertheless, even in its early stages of development, it represents a universal ideal of sanitation and cleanliness. As in the case of the radio, technical development has been rapid, and wise gas company managers are already educating prospective builders and architects as to the type of incinerating equipment that will best suit their needs.

The primitive form of incinerator was constructed with the idea that combined household waste contained sufficient material of a low kindling point and a high heat value to destroy itself. This self-consumption of waste, comparatively inefficient and primitive though it was, had great and obvious advantages over the former unsightly, cumbersome, unclean, and expensive collection systems. And in fact if due intervals of time were allowed for the collection of sufficient rubbish, and for the partial evaporation of the liquids contained in the garbage, additional fuel was not always necessary. Experience, however, has shown that an additional fuel is essential not only to hasten the destruction of waste, but to destroy fire resisting elements of the refuse such as the rinds of fruits and wet corn cobs.

Objections to Self Firing Process

And there are certain other objections to the self-firing process besides the incomplete destruction of organic matter. The operations cannot always be carried out as they should be. For example, not always can two or more families contributing to one incinerator be induced to wrap garbage with sufficient paper to prevent raw masses of decaying matter from clinging to the interior walls of the dump chute, or flue, as the case may be, and upon this wrapping paper, self-firing incinerators depend to obtain the necessary first heat. Moreover, the process of burning must be delayed over drying periods of several days or more and the fact that the moist garbage is

necessarily wrapped in dense, tightly packed bundles tends to prolong these periods; meanwhile the waste matter disintegrates and becomes obnoxious. Nauseating gases given off through the flues during these drying periods, and the large quantity of such gases passed off in incineration periods because of the incomplete combustion of the gases contained in the garbage, constitute a menace to the health and comfort of families in the house and neighborhood, particularly on damp days when smoke does not rise.

One kind of supplementary fuel for the destruction of fire-resisting elements of refuse has been an extra load of wood or paper burned within the incinerator itself, but even with this kind of supplementary heat the main objections are not overcome.

Appliances Have Been Developed

Recognizing the necessity for providing a cheap, clean, and convenient solution of this vital household problem, gas-appliances manufacturers have within the past two years developed special gas-burning equipment with few parts that operate very simply, and that quickly reduce all kinds of garbage and rubbish to an extreme minimum of ash. Special attachments provide for the automatic operation of these machines. At any moment an intense heat may be obtained for the destruction without delay of semi-moist or even moist matter. Because of the efficiency in burner design and the concentration of heat, the gas consumption is low. Since arrangements have been perfected for consuming the nauseating gases driven from the garbage during periods of combustion, there is no possibility of odor. Furthermore, the gas incinerator is so designed that it sterilizes itself at the end of the incineration period. It takes up but little space in the basement. It is far more compact than any other type of incinerator because of the frequency of consumption periods. Small loads can be burned daily without sacrifice of efficiency. It requires no attention except for what would ordinarily be given to any mechanical device—certainly less than is required by an ordinary gas range.

Gas companies should be particularly interested in the very attractive daily load factor since the periods of consumption are likely to come in off peak hours during the day between meal-times. Although the consumption in individual plants is comparatively small, that in a larger incineration plant, such as apartment houses, restaurants, and hotels install, offers a very attractive field for development and should lead the way eventually to a very appreciable load. The importance of this new development in gas service, which offers great convenience in place of unpleasant chores, and substitutes clean, sanitary conditions for nauseating sources of germ-breeding, cannot be overrated. The extension of this service into a heretofore neglected part of the daily life of every gas customer should be a tremendous factor in building good will. Along with water-heating, house-heating, and refrigeration by gas, gas incineration relieves the average customer of one more duty, one more unpleasant task.

Conclusions

The foregoing sections of this report prove conclusively that the problems of garbage and refuse disposal are growing very difficult as population in large cities becomes denser and life more complex; also that destruction at the source by home owners is absolutely the best relief for this growing problem.

In a home equipped with a properly constructed, gas-fired incinerator, all major factors of household disposal nuisances such as garbage, rubbish, trash, tin cans, cartons, paper boxes, etc., can be successfully, safely and economically disposed of leaving only one municipal disposal problem, that of the ash where coal or wood is used as a fuel; and with the big increase in the use of automatic heat, this problem in many homes does not exist today.

Safest Way to Dispose of Garbage

A properly constructed gas-fired incinerator is absolutely the safest way to dispose of household refuse and rubbish, and if the gas industry will realize that here lies an opportunity to serve the home owners in each community in a larger capacity than even fire insurance companies can serve, by offering home owners a safe, sure means of fire prevention, approximately 60% of the fires would be elimtnated.

There is also a great opportunity for the gas industry to render a humanitarian service to their customers in presenting to them increased sanitation, comfort, and convenience that may be theirs when they accept the gas companies' remedy for the filthy evils of the garbage can.

Health is another benefit offered by gas-fired incineration because people do not "get sick" but in most cases are given sickness by flies, mosquitoes, and other pests carrying disease germs which have been bred in garbage cans. No well-laid-out lawn or carefully groomed garden or premises of any kind was improved in its looks by one or more cans where garbage and rubbish are stored awaiting a municipal collector.

These are a few of the reasons why there is no question about the tremendous growth that will come in the gas incineration business, but it will not come until such time as the gas industry sees fit to tell its customers what gas incineration can do for them in their home life. The people do not know today why the destruction of refuse and garbage at the source is by far the superior method and they will not know until they are told by the gas industry.

(Editor's Note: Due to lack of space this report has been considerably abridged. It can be obtained in full from the A. G. A.)

Window Displays*

Various phases are discussed in 1926 committee report

S. C. Rieser

Laclede Gas Light Co., St. Louis, Mo.

SINCE window displays have become a regular part of the business equipment of public utility companies, the display managers are frequently asked whether the added expense pays and if window displays really can make any difference.

"What do you go to all that trouble for?" is the question. And the inquisitor usually goes on: "I can't see why a gas company (or whatever the public utility may be) should spend its money for displays. There are just so many people, and they will use just so much gas . . . and what can you possibly gain by the expense of elaborate window trimming?"

That, generally, is the form the questions take. I hear them often, and I am sure that the display managers of other public utilities have the same experience.

Window Displays Pay

The first and immediate answer to such question is: "If window displays did not pay they would not be used by public utility companies." Simple, isn't it? But some folks seem to think that the gas company, and the electric company, and all the rest have money to squander. They haven't. If window displays failed to produce, if their value could not be demonstrated, they would have been discarded long ago, for public utilities usually have to operate on too small a margin to indulge in any profitless fancies.

In the public utility field, window displays do pay. The concrete experiences of The Laclede Company and dozens of others could be cited to prove this point. But as a matter of fact, the value of window displays for public utility companies does not have to be proven. We long ago passed the point where there was any doubt about the matter. The important thing is to analyze how window displays can be put to work for a company like The Laclede to ascertain what to do with the window displays and what to expect from them for the public utility.

Two Fundamental Uses

There are two fundamental and primary uses to which the windows of a public utility company can be put. One is to sell merchandise; the other, to build good-will.

Under the first classification, two things are meant by the term "merchandise." The term must be understood to mean the appliances and accessories—the merchandise proper; and it must also be understood to mean the essential service or commodity of the company—gas, electricity, communication, transportation, etc.

Selling appliances, from hot water heaters to electric fans, is like selling any other kind of similar merchandise. The display problems of the public utility with respect to appliances are no different from the display problems of any merchant.

As a matter of fact, the public utility is actually a retailer in competition with every other retailer of the same or similar articles. The least that the public utility can do is to display its wares with equal attractiveness. If it expects to outdo its competitors in sales, it must outdo them in merchandising skill.

The utility, however, has a tremendous advantage over other retailers of household appliances. And that is this: Every time a gas appliance is sold it means an additional consumption of gas and every time an electric device is sold it means an additional and more or less continuous use of electricity.

Value of Attractive Display Twofold

Hence, the value of attractive and compelling window displays is two-fold for the public utility. Windows which sell merchandise make one immediate profit for the company, and at the same time they increase the demand for the company's service.

The sale of appliances is sure to result in increased sale of the company's service. Windows which display appliances attractively and "sellingly" pay for themselves immediately; and the best part of their use is that they keep on paying for themselves by earning increased revenue.

It is a relatively easy matter to plan windows which display merchandise effectively. Window displays which sell the service, or the basic commodity, of the company are not so easy. How can you display gas? Or electricity? Or telephone service?

The problem does not appear to be easy to solve, nor is it. Much patient and imaginative thinking must be applied to the task.

Some companies have successfully used window displays depicting the industries of a community which are served by the utility company. Such displays serve the triple purpose of patting each represented industry on the back, of suggesting similar arrangements with other factories, and of creating favorable attention on the part of the public.

The Intangible Advantage

Besides tangible and measurable returns in the immediate sale of merchandise and the subsequent and continuous sale of service which results from window displays on appliances and equipment, there is another type of benefit which may be derived by public utilities from an intelligent and artistic use of another type of display.

This brings us now to that intangible, often abused and frequently misunderstood term "good-will." Much is done in the name of good-will because other

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* Presented before the Commercial Section, A. G. A. Convention, Atlantic City, October 11-15, 1926.

and better justification is lacking, and the term is made the objective of a great deal of merely clever effort.

If the task in hand is properly understood, if the end in view is clear cut and certain, and if the manner of reaching that end is carefully worked out —then good-will can really be created and made to do incalculable service for the public utility.

Just how to design a series of window displays to build good-will is a problem which is usually determined by local conditions. We feel that our own windows which told the story of man's dependence on fire and of how gas supplied that need, were of considerable value in linking us up with the community. The displays which followed, showing high spots in the mutual history of the community and the company material strengthened and added to the good-will which exists, but which we are cultivating nevertheless, for no public service corporation can have too many friends.

The job of planning window displays which will develop good-will depends on local conditions and must be worked out accordingly. But the uses to which good-will displays can be put are universally about the same. The objectives are constant. It is merely the routes to the goal which vary.

(Continued on page 381)

Customer Ownership*

Report of 1926 committee goes into many details

S. E. Skelley
Chairman

HAD your committee been guided by precedent in the preparation of this report, it would have confined its efforts to a mere compilation of statistics covering customer ownership during the past year with a summary only of what had been accomplished since its inception. Such a report is useful for reference, but as an aid to those actively engaged in the sale of company securities under this plan, it is of little practical value.

Realizing that customer ownership, as a branch of our business, is still at that adolescent period where improper direction might turn it from the course intended, or where lack of encouragement might so stunt its growth that it would become but a thorn upon the trunk, your committee has endeavored in this report to add to the record of the past stimulation for the present and guide posts for the future. We have combined with statistics analyses thereof from various angles, a discussion of its more pertinent problems, and a survey of its wider aspects.

Fortunately, the personnel of the committee includes men of wide practical experience in customer ownership and we have added, as an addenda to the report, brief discussions by individual members of the problems most frequently met. Thus, at the risk of having converted a modern sharp-shooting rifle into a blunderbus and of having deviated from the beaten path, we submit this report.

Development of Customer Ownership

Born of necessity and hit upon as a possible new source for needed funds, the sale of securities by utilities to their customers was actively undertaken immediately following the World War. First an experiment, the movement spread rapidly and soon gave promise of possibilities not dreamed of in its inception. From the standpoint of the number of companies undertaking customer ownership and the volume of securities sold, the activity seems to have reached its peak in 1923. That there has been a decrease in the number of companies adopting it since that date, as shown by the accompanying table, does not necessarily mean a falling into disfavor, nor that the amount sold may be smaller for the reason that many companies have, through this channel, supplied for the time being their financial requirements.

TABLE NO. 1

Number of Companies Undertaking Customer Ownership by Years

Year	No. of Cos.	Year	No. of Cos.	Year	No. of Cos.
1900	1	1917	1	1922	10
——		1918	1	1923	17
1912	2	1919	8	1924	9
1915	2	1920	11	1925	12
——	2	1921	11	No Ans	9

Are we really aggressively extending its use and perfecting its plans or are we attempting to coast on our initial momentum which can mean finally only a slipping backward? Just what should be the position of this activity in the industry? Is it now so well established that it will take care of itself both in the individual company and in the industry as a whole? If of the value some believe should not the industry, as a whole, become actively interested in its promotion? Do executives know what progress their individual companies have made, what practices adopted have been proved successful by results attained, what an analysis of the activity within their own organizations for the period covered would indicate? The answer to these questions we believe obvious from the analyses of statistics set out in the following pages. We recommend them to the careful scrutiny of executives.

* Presented before the General Session, A. G. A. Convention, Atlantic City, October 11-15, 1926.

Customer Ownership and Public Relations

The value of customer ownership in creating good-will was early recognized and your committee believes this activity is today justly looked upon as the strongest single factor known to the industry in the development of proper public relations. So much has been said and written on this phase of the subject that it seems idle to comment at length upon it in a report of this committee. We feel, however, that a warning should be sounded lest this very aspect be its ultimate undoing.

There is danger that the usefulness of customer ownership in the development of good-will shall be so emphasized that our motives shall come to be misunderstood and looked upon by the very people whose confidence we wish to gain as a subtle method of undermining their independence of thought and action. Should this happen, the reaction will be in proportion to the original benefits.

We do not believe that the self-interest of the customer who has become financially interested in the utility and the benefit this may be to the company should be advanced as the purpose of justification of the movement. The subject has a much broader aspect. To begin with, our executives and officials must aspire to the greatest efficiency in the management of their companies before they can have the confidence to offer their securities under the plan. The employee, before he can intelligently "talk stock" to his prospect, must familiarize himself with the history, problems, and policies of his company. He cannot do this without becoming a more efficient, interested, and capable employee.

Responsibility Assumed by Company

True to that inexorable law that there can be no benefit without an offsetting loss, obligation, or disadvantage, customer ownership is not a bountiful cornucopia lavishing its blessings upon the company, customer, and community alike without an offsetting of greater obligations. Seeking wide distribution, we have appealed particularly for subscribers among the small investors. We have sought to sell many a few shares rather than a few many shares. In doing so, we have brought within the circle of our corporate family scores of not only small but also inexperienced investors. In many instances have such people "entrusted to our keeping," as they would say, the savings of years, possibly of a lifetime.

Having sought such "co-partners" in the enterprise, we can neither deny nor dodge obligations which we need not have recognized had our funds been raised among seasoned, experienced investors. Added to the increased responsibility to carefully manage that dividends may be paid and principal amply protected, comes a still wider responsibility which we must accept, although perhaps not so obviously, of a relationship akin to that of the banker or investment banker towards his client. We cannot turn a deaf ear to those of our customer-stockholders who, when they wish to diversify their investments or, for other reason, come to us for information and advice concerning other investments. We need not actually advise such persons in the sense of recommending a specific security, but we must be able and willing to give them proper guidance. We have a still further obligation to protect our stockholders so far as possible against the unscrupulous stock salesman who, ever present, offers the holders of seasoned investments green but tempting issues of mushroom growth.

Keeping the Stockholders Sold

Contrary to widespread belief, the actual selling of shares in our companies is the least difficult part of our problem. As soon as sold, we must not only meet the foregoing increased responsibilities, but, in addition, we must be ever alert that the interest and enthusiasm which induced the subscription in the first instance be kept alive. This must be done not only that we may not lose a customer-stockholder but that he may be interested in the company to the extent of recognizing his responsibility as a part owner thereof. This may sound simple but it is not an easy task.

Many companies have adopted, and the practice is becoming more and more general, the issuance regularly of leaflets clear and simple in language and attractive in form, carrying information concerning the company direct to the stockholder. These are sent out in addition to the annual report which is usually of such formal type and technical character as to go over the head of the average customer-stockholder. A convenient and opportune time to distribute these leaflets is with the periodic dividend checks. They offer opportunity for presenting widely diversified data concerning the company and its problems and your committee believes their use should be quite universal.

Compensation Special Salesmen and Employees

One of the most perplexing problems and, from information furnished, one upon which there is a wide diversity of practice is the method of compensating employees and special salesmen. It would appear that the plan of compensating special salesmen usually provides for a guarantee or drawing account of from $100.00 to $150.00 per month. In some instances, commissions are paid on all sales in addition to the guarantee. In others, the guarantee must first be worked off by the salesmen through commissions earned. Sometimes a bonus or commission, or both, for sales in excess of a given quota are paid. In others, commissions are based on a sliding scale graduated either up or down as the number of shares per sale increases. The range is usually from 50 cents to $3.00 per share. Ordinary traveling expenses are generally allowed the salesman but not always those for maintenance and operation where his own car is used. An extra compensation may be paid for new stockholders. The time of payment of commissions varies from weekly to semiannually.

A wide variation exists in the plans of compensating employees. In a few cases no commission is paid. In others, a straight $3.00 per share is paid, with extra commission for new stockholders and

bonuses for sales in excess of given quotas. In a few cases $3.00 is paid for the first share, and 50 cents for each additional share, per sale, with $1.00 less on the first share on deferred payment sales. Special commissions are paid on sales to and shares sold new subscribers.

Because of the wide variation, indicated by the foregoing illustrations, it is not possible with data at hand, to arrive at any accurate averages or to reduce commission paid to a percentage basis. It seems safe to estimate the figure at between $1.00 and $1.50 per share, with occasional special commissions and bonuses. Unless very unusual conditions obtain in certain instances, it is the opinion of your committee that there are too extreme high and low points in the scale of commissions being paid.

Resale Policy

No more vexatious problem has come up under customer ownership than the question of resales, by which is meant the maintenance of a secondary market for shares purchased by customer-stockholders who find it necessary for any cause to convert their holdings into cash. Prior to the advent of customer ownership, the purchaser of stock realized that it was his problem, where his shares were not listed on an exchange, to find a buyer in the event he wished to sell. No obligation was felt to rest on the company selling same to aid him in any way. It was immediately realized that a different relation existed between the utility and its average customer-stockholder; that such purchasers could not be expected to care or be able to hold their shares indefinitely, nor that we could hope to successfully market junior securities among customers, particularly where such securities were not listed, unless we could assure a secondary market at a fair and reasonable cost to the subscriber.

Recommendations

Upon the assumption that a sufficient number of companies returned questionnaires to furnish a basis for fair deductions as to the status of this activity in the industry as a whole, your committee offers the following observations and suggestions:

1. We believe that there has been and is today a tendency among member companies to consider customer ownership as merely a temporary measure and side issue that may be looked after at odd times by willing employees in any department. Sufficient time has not yet elapsed to fully disclose the weakness of such policy, nor has the stress of adverse conditions yet tested the foundation upon which we are building.

2. We believe many companies have permitted the fact that under the more favorable conditions obtaining since customer ownership was first undertaken and developed, financing could be done with less trouble and possibly at less expense through investment banking channels to outweigh the many advantages that might be gained by placing direct an issue of stock among their customers. This tendency will continue to prevail unless renewed interest is wakened in customer ownership or until force of circumstances compel such companies to turn of necessity to this more exacting method of procuring funds.

3. Your committee believes that the officers of this association who are familiar with customer ownership and its many advantages should urge member companies to place their securities in this manner at every opportunity, unless their doing so would be ill-advised because of legal restriction or local conditions. Customer ownership should not be delayed until required as an expedient in raising funds or as a last resort in the hope of improving public relations.

Need for Records

4. In view of the inability of many companies to furnish data deemed essential, your committee feels justified in urging member companies immediately to take the necessary steps to put into effect the keeping and compilation of records on customer ownership that will admit of varied analysis capable of indicating what progress, if any, is being made; the value of policies being followed; and the trend of the activity.

5. That careful study be made by individual companies of their own customer ownership plans, practices, and policies, and that those responsible for their application be encouraged to become familiar with the plans followed by other companies with the thought that the best plans may be ultimately more uniformly established.

6. That where member companies have not already done so a special analysis of the results of their employee cash and deferred payment plans to date be made that this phase of the activity may be more intelligently directed in the future; that special consideration be given to the question of advantages in price and terms to employees.

7. The wide diversity of policy on such important phases of customer ownership as resales, deferred payment plans, compensation of special salesmen and employees, etc., which logically should vary only as affected by local conditions, would indicate in many cases a "trial and error" plan of operation rather than one carefully considered.

Information to Bankers

8. That special thought be given the matter of correctly informing bankers and investment houses of the policies and purposes of customer ownership to the end that they may appreciate that our interest are mutual; that an effort be made to show them that mistrust instead of confidence will be engendered by the practice of endeavoring to "trade out" shares in a local utility in the hands of satisfied customer-stockholders.

9. That executives give careful consideration to the suggestion that a vocational analysis of stockholders be prepared.

10. That special attention be given extending genuine service to customer stockholders, particularly in the elimination of burdensome details connected with the purchase, ownership, resale and transfer of shares.

11. That literature, local in character and personal in tone, containing interesting data concerning their company be frequently and regularly distributed among customer-stockholders.

12. That effort be made to discourage the extension of the customer ownership plan to other lines of industry.

13. That for the sake of uniformity and the accuracy of statistics compiled from time to time on customer ownership, purchasers on the deferred payment plan be referred to as "subscribers" and not as "stockholders."

14. It is believed by your committee that a motion picture film promoted by the American Gas Association depicting the origin, development, and present widespread use of gas would be not only an aid in the sale of junior securities but would also inform and educate employees and our customers and improve public relations.

15. Your committee earnestly recommends interlocking members on this committee and the like committee serving the National Electric Light Association. Co-operation between such committees would not only increase the efficiency of each and save committee members much time but would make it possible for companies engaged in combined gas and electric business to furnish each association with desired information through the compilation of one questionnaire.

Who Is a Stock "Prospect"

How to find

Wm. T. Biedler

Manager, Investment Department, Consolidated Gas, Electric Light and Power Co.

THE answer to both of these questions is found in the answer to the first. A stock "prospect" to a utility engaged in a customer ownership campaign is any customer or member of a customer's family who has money to invest or the will to save—to be thrifty. Most companies assume that everyone residing within the territory supplied with service is desirable as a stockholder whether technically a customer or not.

The easiest way to find those who have the money on hand or who may wish to thriftily enter a partial payment subscription is to have the employees circulate among their friends and talk the company and its stock to those they meet. On numerous occasions during employee sales, employees have entered small stores and having sold one clerk find it easy to take orders from most of those working in the store.

Obtaining Names

If the company is engaged in selling stock through full time salesmen rather than through the employees of the company as a whole there are several excellent ways of obtaining the names of those customers who are ready to invest. Remembering that the whole list of customers are "prospects" and that it only remains to glean from this number of "prospects" those who are at that particular time ready to buy stock, the circularization of all customers either by mail or by "stickers" made up in coupon form and attached to the monthly service bills will bring in the names of a number of people who are practically sold and a visit to whom will result in an order. Another excellent device for finding "prospects" is to offer to employees the opportunity to register with the Investment Department the names of any friends of theirs who they think might be interested in the stock and to protect the employees with a commission should the "prospect" be sold within the ensuing six months. Employees should be encouraged to register as many names as they desire. A satisfied local stockholder is frequently the fertile source of names of many suggested prospects.

Distributing Literature

It may be possible to arrange with the larger manufacturing plants to distribute literature concerning the stock, particularly the partial payment plan, with the pay envelopes of the employees and talks may also be made by representatives of the company to groups of employees of the various factories. Offices of the larger industrial companies are fruitful fields for solicitation if permission to talk with employees during their noon hour can be obtained.

Conspicuous signs displayed near the place where people pay their gas bills will crystallize in the minds of those who come to pay the idea of purchasing stock and action will result immediately.

Advertisements of various natures are mentioned because many have been ingeniously devised in the customer ownership campaigns to bring in the names of "prospects."

The cheapest and most effective way of securing "prospects" is possibly that of attaching a "sticker" in return coupon form to the monthly bills. It has the virtue of at least being noticed by every customer and many will respond to the implied invitation by writing their name and address on the coupon and returning it when they pay their bill.

Service to Stockholders

Wm. T. Biedler

Manager, Investment Department, Consolidated Gas, Electric Light and Power Co.

THE public utility company in obtaining through its customer ownership activities a large number of local stockholders has assumed a responsibilty to the small investor that is greater than that normally implied in the relation between the company and its stockholders. In scattering the stock among a number of small holders people in all walks of life are persuaded to become stockholders, who are ignorant of many of the rudimentary rules of stock investment.

Aside from the fact that the means of resale of the stock should be offered the company is more or less obligated to cater to the increased number of small stockholders with a service that should embrace facilities for the easy and ready transfer of stock, for advice on the proper registration of stockholding and be prepared to supply information on investment affairs of the small holder.

Maintaining Confidence of Investor

The small investor has an inherent respect for his utility; its stability impresses him and he looks to it for a great many things not the least of which is investment service. The utility company should, in the case of a large company, maintain an Investment Department and in the case of a smaller company designate one of its officers for the purpose of answering questions the local stockholder may raise, assist him in selling his stock, cashing his dividend checks, transferring stock following death of the stockholder, assist him in disposing of other securities, or at least direct him to a reliable and reputable firm of bankers and brokers. Those companies which have a number of local common stockholders find on the occasion of an issue of "rights" to their stockholders, that the majority of local investors call at the offices of the company to enter their subscriptions, to buy or sell "rights," and to obtain advice with respect to the advisability of subscribing or disposing of their "rights."

When thought is given to the consideration that the local stockholder judges his investment as much by the treatment he receives at the local office where he comes for information on investment matters as he does by an intellectual analysis of the earnings of the company from sheets of statistics, it may well be concluded that in maintaining good public relations it is necessary to maintain ample facilities for service to local stockholders as it is to maintain a General Service Department to serve as a clearing house for customers' questions and complaints.

Dividend Stuffers

C. R. Phenicie

Vice-president, Wisconsin Public Service Corporation

ONE of the most important problems of public utilities developing customer ownership, is the question of maintaining a secondary market for preferred stock sales and maintaining a close relationship with those customers who are stockholders, to the end that the potential value which lays in customer ownership may be best realized. Both of these desirable objects are realized to a very great extent by proper messages sent out to the customer-stockholder with his dividend check each quarter.

These so-called "dividend stuffers" may take the form of a personal letter signed by the chief executive of the company and run through a mimeograph or duplicator and preferably addressed individually to each stockholder, or they may take the form of a leaflet or even the more pretentious form of a magazine.

The material used in these messages to the stockholders may cover a great variety of subjects, and these subjects can in turn assume many different forms. The writer personally believes that the story of the company's developments and operation may be profitably told to the stockholders in non-technical language every three months, in a way that will

make each stockholder feel his important relationship to the affairs of the company, and will also keep him well informed of new developmnets, problems, growth and general results following the company's operation.

Stockholders receiving such frank and enlightening information every three months from the chief executive of the company, stay sold. The information contained in these bulletins make them feel informed on the business in which they have an ownership, and enables them to discuss with others in an intelligent way questions of franchises, taxes, policies, etc., to the great benefit of the utility. In fact, these "dividend stuffers" properly gotten out and properly distributed, are the greatest possible tangible means of reaping the benefits of customer ownership.

Customer Ownership Advertising

O. E. Wasser

Comptroller, Associated Gas and Electric Company System, Ithaca, New York

CUSTOMER ownership activities have continued increasingly during the past year. This policy now adopted by many utilities has proven its merit both to the companies and to their customers. Parallel with the increase in the amount of securities sold through customer ownership there has been a corresponding increase in the amount of advertising and publicity. The early experimental stage in the selling of securities to customers has been outgrown and the various companies now have more definite conceptions as to the methods and plans which are successful.

Several specific developments have taken place with regard to the selling and advertising programs of customer ownership.

1. In the first place there is a much closer relationship between the advertising and the general selling program. This is as it should be. The advertising should be considered and so planned as to be an integral part of the entire program. This has been the development in advertising and selling in other fields and is now being realized in customer ownership programs.

2. In the second place customer ownership advertising is now being prepared much more carefully with the result that it is more effective and has a broader appeal. The advertising, at the present time, practically without exception, is on a high level of accuracy and conservatism.

Informative Advertising

3. In the next place the advertising now being done by utilities is more informative regarding the nature of the companies, their growth and management. There has been a distinct development in a more broad minded attitude of frankness. The utilities take their customers into their confidence and keep them informed about the policies, progress and the new plans which they are initiating. This is partly the result of the extension of customer ownership. It is partly, also, a cause in helping the spread of customer ownership.

4. Another change which has been taking place is that the advertising is prepared and presented more from the standpoint of the customer than was the case formerly. The interest of the customer deserves first consideration both from the standpoint of service and from the standpoint of the merit of the securities offered to him. A well-known insurance company has a slogan to this effect: "A company is great as it serves." This point of view has come to the front as the dominating conception in the utility field. The advertising has shaped itself in accordance with this point of view and is interpreting that point of view to the public.

5. There are developing at the present time two types of advertising in the utility field; (a) general or institutional advertising and (b) specific security advertising. Both types are useful and, if properly carried out, are probably more effective in the long run in promoting the services of the companies and the sale of their securities than either type alone is likely to be. The general institutional type of advertising serves the purpose of informing the public in a broad-gauged manner regarding the growth and the position of the industry as a whole as well as of the individual company concerned. The specific security type of advertising is more definitely related to pointing out the merits of the securities offered. The two types may be so correlated that they will effectively support each other.

Conduction of Customer Ownership Activities

6. Another direction in which there has been a development is the manner of conducting customer ownership activities. In the earlier stages of it the usual procedure was to put on a short intensive selling and advertising program, sometimes running only

a few days or at the most, two or three weeks. Such drives are still conducted but there is appearing rather generally the policy of continuous educational and sales activity in a more conservative manner. There are advantages in both types of campaigns. The short, intensive campaign emphatically centers attention on that program, and is apt to be somewhat "splurgy" and less conservative. The other type is persistent, gives the impression of greater conservatism, uses as a rule, smaller advertisements, utilizes the services of a few employees in an organization to devote most or all of their time to working with customers and the other employees. The latter has also the advantage in that it does not disturb the usual operation of an organization.

Finally, the managers of utility companies more fully appreciate the responsibility toward the public not only in regard to service but also in regard to foresighted, sound policies of management on which sound securities depend.

Relation with Local Brokers and Bankers and Trade-Outs

H. E. Weeks

General Manager, Securities Department, United Light and Railways Co., Davenport, Ia.

(Editor's Note: This voluminous and valuable report on Customer Ownership is materially abridged in this reproduction. It can be secured in full from the A. G. A. This section on Relations with Bankers has been unavoidably omitted.)

Window Displays

(Continued from page 375)

The Objectives

The objectives of good-will window displays are many. In the first place, such displays should put human aspect on the public service corporation. Such displays can be used to show the public that the company is, after all, human; that it is a part of the community; that it depends on the community for its existence, and that it, therefore, is just as anxious to please as any other institution from the smallest store up. Good-will window displays can go far toward making the public utility a vital and esteemed part of the community.

Any means by which the public service corporation wins and cultivates friends is beneficial in various ways. A company that is known for its fairness and for ts importance to the community cannot easily be harassed.

Good-will makes adverse legislation more difficult of enactment. By making the aims, the ideals and the service of the company known to the general public, all effort toward the development of good-will tends to stifle the suspicion and distrust which invariably exists in the mass mind as it views large and strange forces.

Aid in Selling Securities

And then there is another and often more definite benefit resulting from the creation of good-will. I am referring now to the necessity, from time to time, of selling a company's securities to the general public in order to raise funds necessary for the expansion of the company's facilities. Window displays which have paved the way by telling the story of the company's service make the job easier. That this should be so is obvious for such window displays have already done the preliminary work.

And in addition to the creation of public confidence in the company's affairs, window displays of a public utility can be put are: To push the sale of the issue just as they might push the sale of the commodities in which the company deals.

Productivity of Display Advertising of Peoples Gas Stores

L. E. Lindsay

Director of Display Advertising

TOO much cannot be said for the productivity of carefully planned display advertising, as applied to the numerous sales activities of the utility company. But, until productive display advertising occurs to the official as one of his most important sales media, just so long will he retard his progress toward the goal of maximum send-out.

There was a time when the gas company stood alone in the peculiar service it rendered the community, a gas service at a price, with little or no thought given to the exchange of confidences between the company and the consumers. This led up to one misunderstanding after another.

But this situation has taken on a most radical change, due to several factors. Competitive service, with its vast program of intensive cultivation through advertising, modernized salesmanship and display advertising, probably is the biggest factor in bringing this thing about. Gas for lighting and heating is earnestly contested by the electric forces. Transportation has many competitors in different forms. Telegraphy is outrun by the radio, and the balloon has been made obsolete by the aeroplane.

Receptive Buying Attitude of Public

We are all witnesses to the receptive attitude of the buying public. Indeed, there are times when we are a bit startled at the readiness with which a new service becomes a habit with us, until we are sold on something better.

The people who buy the comforts and the convenience of today or who invest their savings in sound dividend paying stocks are walking about the streets looking for such ideas. They are down on the street in front of our places of business NOW. As live, thrifty merchants we should have our windows open and telling the world what we have to sell through our display advertising.

Display advertising, working hand in hand with the newspaper advertising and the personal selling of the utility company, is one of the strongest cards in the selling deck. When properly conceived, planned, and installed this method of presentation gives life and reality to the idea of good-will, the appliances—service or the sale of stock not otherwise obtainable, the tangible for the seemingly intangible.

Display Advertising an Art

The art of display advertising is a business. It is also a profession and though this method of selling is nationally used in a very big way by many merchandisers, it is still in an embryonic stage among the utilities. We are often asked, "What is display advertising?" For answer we refer to its nearest relative, the full-page, multiple-color, magazine advertisement, a picture with the usual sales argument, price and terms, if any, actually made up and exposed prominently to public view at the front of the establishment where business is carried on.

To the mind of the uninitiated, there rarely occurs as he passes through the pages of the beautifully illustrated advertisements, a thought as to the vast amount of research, the artistic skill and enormous cost of placing those highly educational pages before him.

One need not possess an elastic imagination to discover that these pages have not been produced by the combined efforts of the manager's stenographer, the office boy, and some junior salesman, who too seemed to have some little artistic ability, and a bit of correspondence school training.

But why all this effort and this great cost—why does the advertiser do this thing? Just this, he has something to sell. He must reach us in our home, our office, on the train, at the golf links, or the club, but he must reach and this is his media.

When the newspaper and magazine advertising has played its part in interesting and piloting the prospect to the store it is then up to the merchant to carry the advertising effect through to a conclusive sale by reproducing, if necessary, the same illustration in his display.

Display advertising is daily piling up records of sales as conclusive evidence of its efficiency in merchandising.

The Public Is Interested in Displays

People get so interested in different displays that they even go to the extent of making suggestions or improvements. Even the comma on a display card has caused a special trip to the studio for the sake of arguing whether or not it should be there. But there are the things we cultivate because it shows that our story is going over the top. These people are our customers, they are even more, they are our friends.

At one time we showed an interesting feature in connection with our water-heating window. We had a water-fall effect in which no water was used although most of the passers-by thought so. A little girl looking at this display became curious and insisted that her father bring her into the studio to see how it actually worked. We took delight in showing her how the display was operated without the use of water and her remark was—"You can surely fool the people."

Human displays always have an appeal and it is quite natural that they should do so.

Bridal Shower Display

In a recent Bride's Shower window, having a pretty background of a vine-covered English cottage set in an attractive terraced lawn and gardens, we displayed a large assortment of small kitchen tools. We de-

cided to make a real shower of it, so from the ceiling we hung many streamers of baby ribbon on which were attached some small tools and useful items.

One woman came in and bought one of every item hanging on the ribbons. Even though our saleslady suggested that some of those items served a similar purpose, she did not mind, she wanted one of each. It was a very nice order.

Recently at our corner window which faces on Michigan Avenue, we displayed a new kitchen in which we suggested arrangement and color scheme. It is the practice of my assistant each morning to make the rounds of our displays to see that all settings, price and sales cards are arranged for the day. When he arrived at the corner window his attention was arrested by the interest of an old man looking in first from the Michigan Avenue front and then at the Adams Street side.

Thinking nothing more about it Mr. Swenson continued his tour of inspection and returned to the corner window and entered it from within the store. The old gentleman was still looking in, but suddenly he vanished.

How the Display Window Made a Sale

Mr. Swenson came out of the window into the salesroom where he found our observer completing his purchase of one of our best ranges and other items, paying five hundred dollars cash and the balance on delivery. This window was working for us before we opened our doors for business in the morning.

Our display department watches the stockroom as well as the sale of merchandise in the salesroom. We note those items selling quickly and those that do not; we find out the why of slow sellers, and shift their position or arrangement, and then make a special window display of them in which we also suggest their use. In this method of suggestive selling we are most successful. People want to know what the item is used for.

Quite recently we found ourselves selling competitively with other merchandisers on a certain imported item. On taking count of them we found one hundred and fifty on the shelves of our stockroom. The management conceded a point in price and we gave the item a three-day exclusive window display, in which we suggested it as a gift for the bride; we showed how it could be used, in fact, sold the idea by actual adaptation. We sold fifty the first day and so on until the whole number was sold out.

It is not uncommon to sell out on items as quickly as we can place them on display.

In our displays, "we try to seat our customer at the wheel and let her drive it herself" and we believe we are successful.

Display advertising when rightly directed, when humanized to the point of results, pays handsomely. We could not afford not to display our ideas to the public.

Home Study Course on Gas*

Report on Columbia Extension Course indicates active interest

Professor Jerome J. Morgan

THIS course grew out of a request coming to the American Gas Association Headquarters for a correspondence course on gas manufacture to take the place of the Gas Trustees' Course, which was discontinued December 31, 1923. It was announced and described in a circular sent to all the individual members of the American Gas Association during August, 1925.

In the preparation and conduction of the course, I have had the active assistance of an advisory committee representing the Committee on Education of Gas Company Employees, consisting of the following eminent gas engineers:

A. E. Forstall, Consulting Engineer, New York, N. Y.

C. E. Paige, Vice-president, The Brooklyn Union Gas Co., Brooklyn, N. Y.

F. C. Weber, Gas Engineer, Cities Service Co., New York, N. Y.

W. S. Yard, Vice-president, Pacific Gas and Electric Co., San Francisco, California.

It is a very great pleasure to acknowledge at this time the helpful co-operation of these gentlemen in all the matters pertaining to the work. They have constituted an advisory committee in fact as well as in name.

I am very glad also to express my appreciation of the co-operation of Mr. Kurwin R. Boyes, Secretary of the Committee on Education of Gas Company Employees, whose advice and aid have contributed very materially to the success of the course.

The Course

The course, as described in the circular, consists of 24 lessons, the first 12 dealing with the problem of producing and preparing for distribution the main types of manufactured gas. The remaining 12 deal with distribution and utilization of manufactured gas, as well as with questions of accident prevention, statistical accounting, rate making and public relations. It is planned that these 24 lessons should constitute two years' work for a man who has had a

* Presented at the General Sessions, A. G. A. Convention, Atlantic City, Oct. 11-14, 1926.

high school education, including one year of chemistry and physics, and who is employed in the gas business.

The active work of the course started on October 1st, 1925, at which time the material for Lessons One and Two was mailed to about 100 men whose enrollments had been accepted at that time. Since then a total of 944 men have enrolled, from which number there have been withdrawn for one reason or another 44 men, giving a net enrollment to date of 900.

At the time the course was started, three lessons were actually printed and two more were partly prepared. Since then lessons up to and including Lesson Ten have been prepared and sent out to those students who are ready for them. Lesson Eleven is now being printed and Lesson Twelve will be ready about October 1st, the end of the first year. From then on, it is expected that the lessons will be ready for mailing at the rate of one lesson a month.

Special Text Book

When the course was first outlined, it was thought that one or two of the current textbooks on manufactured gas might be used. As these were considered more carefully it was evident that the use of any combination of them would necessitate a very great deal of supplementary writing in order to present up-to-date American gas practice. It was decided, therefore, to write a textbook for special use in the course. This textbook, "Manufactured Gas, Its Production, Distribution and Utilization," I am writing and having printed in pamphlet form by the Zinc Plate Offset Process. It is sent out to students enrolled in the course along with the other lesson material. To date 446 pages, forming the basis for Lessons One to Eleven and equivalent to more than 1,000 typewritten pages, are completed. It is fully illustrated and aims to present up-to-date American Gas Practice. When completed, October, 1927, it will consist of two volumes of about 500 pages each.

In the preparation of this text I have had not only advice and constructive criticism from Messrs. Forstall, Paige, Weber and Yard, but also a very generous co-operation in the supplying of information and illustrated material by gas company officials and manufacturers of gas machinery as well as by committees of the American Gas Association. I am very glad of this opportunity to express publicly my thanks for this help.

Need For Course Evident

As has been outlined above, the need for the course was recognized by the American Gas Association. A great deal of aid in securing enrollments and in collecting and assembling material to be used for instruction has also come from the Association through its staff, its committees and individual members. It was, however, the organization of the Home Study Department of Columbia University that rendered possible the presentation of the course in its present form. It was also the smooth-working machinery of the Home Study Department that permitted the organization and conduction of a class of 900 in which each member of the class receives instruction directly from the technical men in charge of the course. No small share in the credit for the development of the course is due to the organization of the Home Study Department and the writer takes pleasure in acknowledging the hearty co-operation which he has received from members of the Home Study Staff who have thus contributed to the success of the course.

In carrying on the work of the course, one problem has been to get the men to submit their lessons regularly and within reasonable periods. In this connection several follow-up letters have been sent out, both by the University and the Association, to men who are taking the course. In spite of all that we have done, there are still 159 men who have not yet sent in Lesson One and 135 men, who, having submitted Lesson One, have not yet submitted Lesson Two. The following table shows the numbers of each lesson which have been submitted during different periods, and may be of interest in illustrating this problem of obtaining consecutive regular work.

It is believed that a little co-operation by executives in contributing a work of encouragement to the men who are enrolled in the course may aid these men in taking full advantage of the opportunities presented them.

Conclusion

In closing this brief review of the year's work the writer would like to say a word about the men who are thus devoting their spare time to study in the attempt to make themselves more useful to their employers and to the gas industry. The number who have done this has exceeded even the expectations of the most optimistic of those concerned with the establishment of the course. The quality of these men is also worthy of comment. They are the ambitious, alert, industrious younger member of the industry. An analysis of their educational qualifications shows that over 60 per cent. of them are college men. They are the men from whom future executives will be drawn, and it is believed the zeal they have shown in their study argues well for the future of the industry.

Date	1	2	3	4	5	6	7	8	9	Totals
Oct. 1—Dec. 31, 1925	459	171	63	4						697
Jan. 1—Mar. 6, 1926	164	232	191	100	46	8				741
Mar. 7—Apr. 24, 1926	69	124	125	132	99	65	8			622
Apr. 25—May 27, 1926	29	51	64	64	57	65	66	9		405
May 28—June 30, 1926	13	16	42	42	54	47	52	51	15	332
July 1—July 31, 1926	7	12	20	30	35	32	30	36	35	237
Totals	741	606	505	372	291	217	156	96	50	3034